

Exhibit C

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Page 1

1 IN THE UNITED STATES DISTRICT COURT
2 FOR THE SOUTHERN DISTRICT OF OHIO
3 EASTERN DIVISION

4 IN RE: FIRSTENERGY CORP. CIVIL ACTION NO.
5 SECURITIES LITIGATION 2:20-CV-3785
6

7 THIS DOCUMENT RELATES TO:
8 ALL ACTIONS.

9
10
11 CONFIDENTIAL
12 UNDER THE PROTECTIVE ORDER
13 VIRTUAL VIDEOCONFERENCE VIDEO-RECORDED
14 DEPOSITION OF CYNTHIA JONES, CFA

15 TUESDAY, JULY 19, 2022
16 10:09 A.M. EDT

17 TAKEN VIA VIDEOCONFERENCE

18 WITNESS LOCATION:
19 SHREWSBURY, NEW JERSEY

20 REPORTER: PAMELA S. GREENFIELD, CRR, RDR

21
22 JOB NO. 5297712
23
24
25

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<p style="text-align: right;">Page 2</p> <p>1 IN THE UNITED STATES DISTRICT COURT</p> <p>2 FOR THE SOUTHERN DISTRICT OF OHIO</p> <p>3 EASTERN DIVISION</p> <p>4</p> <p>5 IN RE: FIRSTENERGY CORP CIVIL ACTION NO</p> <p>6 SECURITIES LITIGATION 2:20-CV-3785</p> <p>7</p> <p>8 THIS DOCUMENT RELATES TO:</p> <p>9 ALL ACTIONS</p> <p>10 - - - -</p> <p>11 CONFIDENTIAL UNDER THE PROTECTIVE ORDER, VIRTUAL</p> <p>12 VIDEOCONFERENCE VIDEO-RECORDED DEPOSITION OF</p> <p>13 CYNTHIA JONES, CFA, TAKEN PURSUANT TO THE</p> <p>14 STIPULATIONS OF COUNSEL THEREOF, REMOTELY</p> <p>15 TESTIFYING FROM SHREWSBURY, NEW JERSEY, ON</p> <p>16 TUESDAY, JULY 19, 2022, BEGINNING AT 10:09 A M ,</p> <p>17 EASTERN DAYLIGHT TIME, AND ADJOURNING AT 4:48</p> <p>18 P M , BEFORE PAMELA S GREENFIELD, CRR, RDR</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p style="text-align: right;">Page 4</p> <p>1 REMOTE APPEARANCES OF COUNSEL: (CONTINUED)</p> <p>2 For Defendant Michael Dowling:</p> <p>3</p> <p>4 TUCKER ELLIS LLP</p> <p>5 BY: JOHN A FAVRET, III, ESQ</p> <p>6 950 Main Avenue, Suite 1100</p> <p>7 Cleveland, Ohio 44113</p> <p>8 john favret@tuckerellis.com</p> <p>9</p> <p>10 For Defendant Charles E Jones:</p> <p>11 BAKER & HOSTETLER</p> <p>12 BY: TAYLOR A THOMPSON, ESQ</p> <p>13 BY: XAVIER THOMAS-HUGHES, ESQ</p> <p>14 Key Tower Suite 2000</p> <p>15 127 Public Square</p> <p>16 Cleveland, Ohio 44114</p> <p>17 tathompson@bakerlaw.com</p> <p>18 xthomashughes@bakerlaw.com</p> <p>19 -and-</p> <p>20 GIBSON, DUNN & CRUTCHER LLP</p> <p>21 BY: JASON MELTZER, ESQ</p> <p>22 1050 Connecticut Ave, N W</p> <p>23 Washington, D C 20036</p> <p>24 jmeltzer@gibsondunn.com</p> <p>25</p> <p>16 For Defendant Donald Schneider:</p> <p>17 BUCKLEY LLP</p> <p>18 BY: JILL WINTER, ESQ</p> <p>19 2001 M Street N W , Suite 500</p> <p>20 Washington, D C 20036</p> <p>21 jwinter@buckleyfirm.com</p> <p>22</p> <p>23 For Defendant John Judge:</p> <p>24</p> <p>25 VORYS, SATER, SEYMOUR AND PEASE LLP</p> <p>26 BY: ANDREW P GURAN, ESQ</p> <p>27 BY: VICTOR A WALTON, ESQ</p> <p>28 50 S Main Street, Suite 1200</p> <p>29 Akron, Ohio 44308</p> <p>30 apguran@vorys.com</p> <p>31 vwalton@vorys.com</p>
<p style="text-align: right;">Page 3</p> <p>1 REMOTE APPEARANCES OF COUNSEL:</p> <p>2 For Plaintiffs Los Angeles County Employees</p> <p>3 Retirement Association:</p> <p>4</p> <p>5 ROBBINS GELLER RUDMAN & DOWD LLP</p> <p>6 BY: TOR GRONBORG, ESQ</p> <p>7 BY: HILLARY STAKEM, ESQ</p> <p>8 BY: ANDREW W HUTTON, ESQ</p> <p>9 BY: LUCAS OLTS, ESQ</p> <p>10 655 West Broadway</p> <p>11 San Diego, California 92101</p> <p>12 tgronborg@rgrdlaw.com</p> <p>13 hstakem@rgrdlaw.com</p> <p>14 ahutton@rgrdlaw.com</p> <p>15 lolts@rgrdlaw.com</p> <p>16 -and-</p> <p>17 MURRAY MURPHY MOUL + BASIL LLP</p> <p>18 BY: JOSEPH F MURRAY, ESQ</p> <p>19 BY: JIMMY STALEY, ESQ</p> <p>20 1114 Dublin Road</p> <p>21 Columbus, Ohio 43215</p> <p>22 murray@mmb.com</p> <p>23 staley@mmb.com</p> <p>24</p> <p>25 For Defendants FirstEnergy Corp : Steven Strah;</p> <p>26 K Jon Taylor; Jason J Lisowski; George M</p> <p>27 Smart; Paul T Addison; Michael J Anderson;</p> <p>28 Steven J Demetriou; Julia L Johnson; Donald T</p> <p>29 Misheff; Thomas N Mitchell; James F O'Neil III;</p> <p>30 Christopher D Pappas; Sandra Pianalto; Luis A</p> <p>31 Reyes; Jerry Sue Thornton and Leslie M Turner:</p> <p>32</p> <p>33 JONES DAY</p> <p>34 BY: GEOFFREY J RITTS, ESQ</p> <p>35 BY: M RYAN HARMANIS, ESQ</p> <p>36 901 Lakeside Avenue</p> <p>37 Cleveland, Ohio 44114</p> <p>38 gjritts@jonesday.com</p> <p>39 rharmanis@jonesday.com</p> <p>40</p> <p>41</p> <p>42</p> <p>43</p> <p>44</p> <p>45</p>	<p style="text-align: right;">Page 5</p> <p>1 REMOTE APPEARANCES OF COUNSEL: (CONTINUED)</p> <p>2 For Defendant Leila Vespoli:</p> <p>3 ARNOLD & PORTER</p> <p>4 BY: AARON F MINER, ESQ</p> <p>5 BY: ANDREW JOHNSON, ESQ</p> <p>6 250 West 55th Street</p> <p>7 New York, New York 10019-9710</p> <p>8 aaron.miner@arnoldporter.com</p> <p>9 andrew.johnson@arnoldporter.com</p> <p>10</p> <p>11 For Defendant James Pearson:</p> <p>12</p> <p>13 BALLARD SPAHR LLP</p> <p>14 BY: TIMOTHY D KATSIFF, ESQ</p> <p>15 BY: EMILIA MCKEE-VASSALLO, ESQ</p> <p>16 1735 Market Street, 51st Floor</p> <p>17 Philadelphia, Pennsylvania 19103</p> <p>18 katsiff@ballardspahr.com</p> <p>19 mckeevassallo@ballardspahr.com</p> <p>20</p> <p>21 For Defendant Dennis Chack:</p> <p>22</p> <p>23 MORGAN, LEWIS & BOCKIUS LLP</p> <p>24 BY: KAREN POHLMANN, ESQ</p> <p>25 1701 Market Street</p> <p>26 Philadelphia, Pennsylvania 19103</p> <p>27 kpohlmann@morganlewis.com</p> <p>28</p> <p>29 For Defendant Ty Pine:</p> <p>30</p> <p>31 TAFT STETTINIUS & HOLLISTER, LLP</p> <p>32 BY: MICHAEL ZBIEGIEN, ESQ</p> <p>33 200 Public Square, Suite 3500</p> <p>34 Cleveland, Ohio 44118</p> <p>35 mzbiegin@taftlaw.com</p> <p>36</p> <p>37 For Underwriter Defendants:</p> <p>38</p> <p>39 DAVIS POLK & WARDWELL LLP</p> <p>40 BY: ERIC M KIM, ESQ</p> <p>41 BY: JOSHUA N SHINBROT, ESQ</p> <p>42 450 Lexington Avenue</p> <p>43 New York, New York 10017</p> <p>44 eric.kim@davispolk.com</p> <p>45 joshua.shinbrot@davispolk.com</p>

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<p style="text-align: right;">Page 6</p> <p>1 REMOTE APPEARANCES OF COUNSEL: (CONTINUED)</p> <p>2 For Defendant Robert Reffner:</p> <p>3 MCDERMOTT WILL & EMERY LLP</p> <p>4 BY: PAUL HELMS, ESQ.</p> <p>5 444 West Lake Street, Suite 4000</p> <p>6 Chicago, Illinois 60606</p> <p>7 phelms@mwe.com</p> <p>8 ALSO PRESENT:</p> <p>9 Michael Koslen, Esq., FirstEnergy</p> <p>10 Peter Hudson, Videographer</p> <p>11 Karen Patterson, Veritext</p> <p>12 Steve Hager, Veritext</p>	<p style="text-align: right;">Page 8</p> <p>1</p> <p>2 THE VIDEOGRAPHER: We are on the</p> <p>3 record at 10:01 a.m. Eastern Daylight Time</p> <p>4 on July 19th, 2022 beginning the remote</p> <p>5 video-recorded deposition of Cynthia Jones</p> <p>6 taken in the matter of In Re: FirstEnergy</p> <p>7 Corp. Securities Litigation in the United</p> <p>8 States District Court for the Southern</p> <p>9 District of Ohio, Eastern Division, Case</p> <p>10 Number 2:20-CV-03785. All parties present</p> <p>11 and appearing this morning will be</p> <p>12 reflected on the stenographic record. The</p> <p>13 court reporter will swear the witness and</p> <p>14 you may then proceed.</p> <p>15 CYNTHIA JONES, CFA, of lawful age, being by</p> <p>16 me first duly sworn, as hereinafter certified,</p> <p>17 deposed and said as follows:</p> <p>18 CROSS-EXAMINATION OF CYNTHIA JONES, CFA</p> <p>19 BY MR. RITTS:</p> <p>20 Q. Good morning, Ms. Jones, let me introduce myself.</p> <p>21 My name's Geoffrey Ritts. I represent Defendant</p> <p>22 FirstEnergy Corp. in this case along with a</p> <p>23 collection of individual defendants.</p> <p>24 Would you please state your name and address</p> <p>25 for the record.</p>
<p style="text-align: right;">Page 7</p> <p>1 WITNESS INDEX</p> <p>2 PAGE</p> <p>3 CROSS-EXAMINATION</p> <p>4 CYNTHIA JONES, CFA</p> <p>5 BY MR. RITTS 8</p> <p>6 CONTINUED CROSS-EXAMINATION</p> <p>7 CYNTHIA JONES, CFA</p> <p>8 BY MR. RITTS 115</p> <p>9 EXHIBIT INDEX</p> <p>10 EXHIBIT PAGE</p> <p>11 Exhibit FE 1, Jones report 10</p> <p>12 Exhibit FE 2, Jones Exhibit 8</p> <p>13 spreadsheet 99</p> <p>14 Exhibit FE 3, Complaint 157</p> <p>15 Exhibit FE 4, Jones AK3 spreadsheet 190</p> <p>16 Exhibit FE 5, Jones AL1 spreadsheet 194</p>	<p style="text-align: right;">Page 9</p> <p>1 A. [REDACTED]</p> <p>2 [REDACTED]</p> <p>3 Q. Do you understand that the testimony you'll be</p> <p>4 giving today is under oath?</p> <p>5 A. I do.</p> <p>6 Q. You understand that you have a legal obligation</p> <p>7 to give accurate and complete testimony today?</p> <p>8 A. I do.</p> <p>9 Q. Is there anything preventing you from giving</p> <p>10 accurate and complete testimony today?</p> <p>11 A. No.</p> <p>12 Q. Where are you located this morning?</p> <p>13 A. I'm located in my office in Shrewsbury, New</p> <p>14 Jersey.</p> <p>15 Q. What devices do you have in the room with you?</p> <p>16 A. I have my laptop. I have a landline telephone.</p> <p>17 Q. Do you have a cell phone in the room with you?</p> <p>18 A. I do not.</p> <p>19 Q. Do you have any documents, notes or other papers</p> <p>20 relating to the case with you?</p> <p>21 A. I have one document which is my expert report and</p> <p>22 it was recently printed this morning so it has no</p> <p>23 notes or comments or anything on it.</p> <p>24 Q. Do you have anything else with you to help you</p> <p>25 testify today?</p>

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<p style="text-align: right;">Page 10</p> <p>1 A. I do not.</p> <p>2 Q. Is anybody in the room with you?</p> <p>3 A. No.</p> <p>4 MR. RITTS: Could we go off the</p> <p>5 record, court reporter?</p> <p>6 THE VIDEOGRAPHER: We're off the</p> <p>7 record at 10:04 a m.</p> <p>8 - - - -</p> <p>9 (Thereupon, a recess was had.)</p> <p>10 - - - -</p> <p>11 THE VIDEOGRAPHER: We are back on</p> <p>12 the record at 10:11 a m.</p> <p>13 - - - -</p> <p>14 (Thereupon, Exhibit FE 1, Jones report, was</p> <p>15 marked for purposes of identification.)</p> <p>16 - - - -</p> <p>17 Q. Ms. Jones, I'm having placed in front of you a</p> <p>18 document that has been marked for identification</p> <p>19 purposes as Exhibit 1. If you refresh your</p> <p>20 Exhibit folder, you should see that document.</p> <p>21 A. I'm looking for the exhibits folder.</p> <p>22 MR. GRONBORG: Geoff, as she's</p> <p>23 doing that, did we -- are you planning to</p> <p>24 start with Defendants' Exhibit 1 and</p> <p>25 Plaintiffs' Exhibit 1? I assume you used</p>	<p style="text-align: right;">Page 12</p> <p>1 me if that's your signature?</p> <p>2 A. Yes, it is.</p> <p>3 Q. Is Exhibit FE 1 include all of the exhibits and</p> <p>4 appendices to your report?</p> <p>5 A. Yes, it does.</p> <p>6 Q. Does this report contain a complete statement of</p> <p>7 all of your opinions you formed in this matter?</p> <p>8 A. Yes, it does.</p> <p>9 Q. Does the report accurately describe all of the</p> <p>10 work that you've done on this case?</p> <p>11 A. Yes, it does.</p> <p>12 Q. Are there any other opinions that you intend to</p> <p>13 offer in this case that you have not included in</p> <p>14 this report?</p> <p>15 A. Not as I sit here today.</p> <p>16 Q. Have you been asked to do any other work besides</p> <p>17 developing the opinions that are set forth in</p> <p>18 your report?</p> <p>19 A. I have not.</p> <p>20 Q. Are all of the bases for your opinions set forth</p> <p>21 in your report?</p> <p>22 A. I believe so.</p> <p>23 Q. Does the report disclose all facts and data that</p> <p>24 you considered in forming your opinion?</p> <p>25 A. I believe it does.</p>
<p style="text-align: right;">Page 11</p> <p>1 Exhibit 1 at the last deposition.</p> <p>2 MR. RITTS: It's marked FE 1 and</p> <p>3 it has the witness's name on the sticker so</p> <p>4 it's distinct.</p> <p>5 A. I'm having trouble finding the exhibits folder.</p> <p>6 MS. PATTERSON: Ms. Jones, did</p> <p>7 you open up your Egnite Exhibit Share</p> <p>8 account?</p> <p>9 A. I did.</p> <p>10 MR. RITTS: Why don't we go off</p> <p>11 the record while she does this.</p> <p>12 THE VIDEOGRAPHER: We're off the</p> <p>13 record at 10:12 a m.</p> <p>14 - - - -</p> <p>15 (Off the record.)</p> <p>16 - - - -</p> <p>17 THE VIDEOGRAPHER: We are back on</p> <p>18 the record at 10:15 a m.</p> <p>19 Q. Ms. Jones, I've placed in front of you a document</p> <p>20 that's been marked for identification purposes as</p> <p>21 Exhibit FE 1. Is that a copy of your report in</p> <p>22 this matter?</p> <p>23 A. It is.</p> <p>24 Q. If you look at the page numbered 48 in the lower</p> <p>25 right-hand corner of the document, would you tell</p>	<p style="text-align: right;">Page 13</p> <p>1 Q. Did anybody help you with your report?</p> <p>2 A. Yes.</p> <p>3 Q. Who?</p> <p>4 A. Several staff members here at DLA assisted me</p> <p>5 with some of the calculations and data</p> <p>6 manipulation.</p> <p>7 Q. Who are those people?</p> <p>8 A. Scott Semaya. That's S-E-M-A-Y-A. Joshua</p> <p>9 Shapiro and Andrew Kyriacou.</p> <p>10 Q. What did each of them do?</p> <p>11 MR. GRONBORG: Object to form.</p> <p>12 A. Each of them had different tasks but Andrew, for</p> <p>13 example, was asked to pull some research for me,</p> <p>14 news articles. He may have been asked to pull</p> <p>15 some data for me.</p> <p>16 Scott and Joshua would have been asked to do</p> <p>17 some data manipulation. For example a cleansing</p> <p>18 procedure with the FINRA TRACE data and they</p> <p>19 would have been asked to do some calculations and</p> <p>20 also check some calculations.</p> <p>21 Q. What are the qualifications of each of those</p> <p>22 people to work on this report?</p> <p>23 MR. GRONBORG: Object to form.</p> <p>24 A. So Scott Semaya has a degree in accounting and</p> <p>25 finance from University of Miami. He also has an</p>

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<p style="text-align: right;">Page 14</p> <p>1 MBA from Baruch College. Joshua Shapiro has a, 2 was a double majored in accounting and finance. 3 He graduated from the University of Maryland and 4 Andrew Kyriacou has an undergraduate degree in 5 accounting and he's got a Master's in accounting 6 and I believe that's from Loyola University. 7 Q. When were you engaged to offer expert opinions in 8 support of class certification here? 9 A. I believe it was in March of this year. 10 Q. Who engaged you? 11 A. The Robbins Geller firm. 12 Q. A particular person? 13 A. Tor Gronborg. 14 Q. Do you have an engagement letter? 15 A. I believe we do. 16 Q. What are the terms of your engagement? 17 A. Can you be more specific? 18 Q. Sure. What are the terms by which you or your 19 firm will be compensated for the work on this 20 engagement? 21 A. I believe they're set forth in my report and 22 there's a range of hourly rates for DLA staff 23 members and there's an hourly rate set forth for 24 my time as well. 25 Q. How many hours did you spend preparing your</p>	<p style="text-align: right;">Page 16</p> <p>1 A. I am. 2 Q. What is DLA? 3 A. DLA is an accounting and corporate advisory firm. 4 Q. Who owns DLA? 5 A. David Landau. 6 Q. How many employees does DLA have? 7 A. Approximately 100. 8 Q. Are you an employee? 9 A. Yes. 10 Q. Where is DLA located? 11 A. DLA has several physical offices. Headquarters 12 are in Fairfield, New Jersey. We have an office 13 here in Shrewsbury, New Jersey. We have an 14 office in Boston, Massachusetts and we have some 15 employees that work remotely who are located in a 16 number of states. 17 Q. Where do you work? 18 A. My office is in Shrewsbury, New Jersey. 19 Q. What does it mean that you're a senior manager? 20 A. What does the title mean? 21 Q. Yes. 22 A. I'm not certain how to answer that. 23 I can tell you my, what my responsibilities 24 are. 25 Q. Okay.</p>
<p style="text-align: right;">Page 15</p> <p>1 report? 2 A. From beginning to end including calculations, 3 research or just in writing the report? 4 Q. All in. 5 A. I don't know precisely but if I had to guess, I 6 would say somewhere between maybe 50 and 100 7 hours. 8 Q. And how many hours did your team spend working on 9 your report? 10 A. Probably combined maybe 20, 20 hours. 11 Q. How many hours have you worked on this case so 12 far since you were first engaged? 13 A. I don't know. 14 Q. Is your compensation or your firm's compensation 15 in this case contingent in any way? 16 A. It is not. 17 Q. Will it vary at all depending on the outcome of 18 the class certification motion or the outcome of 19 the case? 20 A. No, sir. 21 Q. You're a senior manager at DLA LLC; is that 22 correct? 23 A. Yes. 24 Q. You're part of the forensics valuation and 25 litigation services group?</p>	<p style="text-align: right;">Page 17</p> <p>1 A. So we have a group of approximately 15 in the 2 FVLS group and we have some associates who, you 3 know, work on projects with us. They would be at 4 a more junior level and then we also have a 5 managing director and a partner and I would be 6 below the managing director. 7 Q. Do people report to you? 8 A. Yes. 9 Q. Who reports to you? How many people? 10 A. Approximately eight but some of those folks are 11 shared and some are paraprofessionals, not 12 necessarily research assistants. 13 Q. Who do you report to? 14 A. I report to the partner in charge of the FVLS 15 group who is Kevin Baldwin. 16 Q. Did Mr. Baldwin have any involvement with your 17 work on this engagement? 18 A. He did not. 19 Q. Did he review or work on your report at all? 20 A. He did not. 21 Q. Has DLA been paid in this case? 22 A. I know that we have received payment on some of 23 our invoices but I don't know whether there is 24 currently anything outstanding. 25 Q. What is the amount of the bills that DLA has</p>

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<p style="text-align: right;">Page 18</p> <p>1 submitted in this matter to date?</p> <p>2 A. I don't know the total amount.</p> <p>3 Q. When will DLA be paid? At the end of the case or</p> <p>4 before?</p> <p>5 MR. GRONBORG: Object to form.</p> <p>6 A. Our agreement is to be paid within 30 days of</p> <p>7 issuing an invoice and thus far we have been paid</p> <p>8 for the invoices that we issued within that</p> <p>9 period of time.</p> <p>10 Q. Is all of your time billed through DLA or do you</p> <p>11 separately submit bills for your time?</p> <p>12 A. No, sir. Just through DLA.</p> <p>13 Q. If you would look at Exhibit 3 to your report.</p> <p>14 It's Page 57 of 108 at the top?</p> <p>15 A. Okay.</p> <p>16 Q. Is this your current CV?</p> <p>17 A. It is.</p> <p>18 Q. Is it complete and accurate?</p> <p>19 A. I believe so.</p> <p>20 Q. What year did you receive your undergraduate</p> <p>21 degree?</p> <p>22 A. 1987.</p> <p>23 Q. What year did you receive your MBA?</p> <p>24 A. 1994 I believe.</p> <p>25 Q. Was your MBA program a full-time MBA program or</p>	<p style="text-align: right;">Page 20</p> <p>1 securities.</p> <p>2 Q. You joined DLA in 2021; is that right?</p> <p>3 A. I did.</p> <p>4 Q. Do you know DLA's approximate revenues in 2021?</p> <p>5 A. I do not.</p> <p>6 Q. Over the past year, how much of your time per</p> <p>7 week have you spent on litigation-related work?</p> <p>8 A. Approximately 60 to 70 percent.</p> <p>9 Q. How many hours did you bill clients in 2021?</p> <p>10 A. I don't know.</p> <p>11 Q. Did you bill any clients for work in 2021 that</p> <p>12 was not litigation related?</p> <p>13 A. Yes.</p> <p>14 Q. Could you describe that work, please?</p> <p>15 A. Certainly. Approximately 30 to 40 percent of my</p> <p>16 time is spent doing business valuation work for</p> <p>17 privately held companies. I prepare what's known</p> <p>18 as 409a valuations for privately held, usually</p> <p>19 technology companies that are seeking to</p> <p>20 distribute equity securities or warrants or</p> <p>21 options to certain of their key employees and the</p> <p>22 IRS requires that the company and those</p> <p>23 securities be valued at the time that they are</p> <p>24 issued so I spend quite a bit of time doing 409a</p> <p>25 valuations. I also prepare valuations of</p>
<p style="text-align: right;">Page 19</p> <p>1 an evening MBA program?</p> <p>2 A. It was an executive MBA program in the evening</p> <p>3 and weekends.</p> <p>4 Q. On your CV after the Master of Business</p> <p>5 Administration degree there's a parenthetical</p> <p>6 that says finance in parentheses. What does that</p> <p>7 parenthetical mean?</p> <p>8 A. It means that I concentrated in finance with my</p> <p>9 Master's program.</p> <p>10 Q. Does your degree state that it is a finance</p> <p>11 degree?</p> <p>12 A. I'm not certain.</p> <p>13 Q. What year did you obtain your Chartered Financial</p> <p>14 Analyst designation?</p> <p>15 A. 1992.</p> <p>16 Q. What did you have to do to obtain the CFA</p> <p>17 designation?</p> <p>18 A. Complete a three-year study program and</p> <p>19 successfully pass three levels of exams.</p> <p>20 Q. What did the study program consist of?</p> <p>21 A. The study program consists of a discipline that</p> <p>22 is includes the valuation of fixed income</p> <p>23 securities, equity securities. Includes</p> <p>24 accounting. It includes economics. It includes</p> <p>25 ethics. It includes the valuation of derivative</p>	<p style="text-align: right;">Page 21</p> <p>1 partnerships, family limited partnerships to</p> <p>2 LLCs, other privately held entities for gift and</p> <p>3 estate tax purposes.</p> <p>4 Q. At the bottom of the first page of your CV it</p> <p>5 reflects work at Monument Economics Group from</p> <p>6 2017 to 2021. What was your role at Monument</p> <p>7 Economics Group?</p> <p>8 A. At Monument I was a group leader primarily</p> <p>9 responsible for the litigation related consulting</p> <p>10 we did in securities matters.</p> <p>11 Q. Why did you move from Monument to DLA?</p> <p>12 A. Monument's located in Arlington, Virginia. I had</p> <p>13 a rather remote office in New York City and when</p> <p>14 the pandemic hit, I felt very isolated from my</p> <p>15 group in Arlington, so I was eager to join a</p> <p>16 group that was much closer to home with more</p> <p>17 personal contact.</p> <p>18 Q. The preceding item on your CV is Management</p> <p>19 Planning, Inc., from 2015 to 2017. Is that also</p> <p>20 a litigation consulting group?</p> <p>21 A. It is not.</p> <p>22 Q. What did you do at Management Planning?</p> <p>23 A. Management Planning is one of the country's</p> <p>24 oldest business valuation and advisory firms and</p> <p>25 they had a small litigation group and I joined</p>

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<p style="text-align: right;">Page 22</p> <p>1 their litigation group and also worked with</p> <p>2 others in the firm doing straight business</p> <p>3 valuation and advisory work.</p> <p>4 Q. Your role at Management Planning primarily</p> <p>5 involved consulting for litigation; is that</p> <p>6 right?</p> <p>7 MR. GRONBORG: Object to form.</p> <p>8 A. I think I just, I think I just explained that</p> <p>9 that was not correct, that I did both litigation</p> <p>10 and non-litigation.</p> <p>11 Q. Thank you. What percentage of your work at</p> <p>12 Management Planning was litigation related?</p> <p>13 A. Probably 60 percent.</p> <p>14 Q. Why did you leave Management Planning, Inc.?</p> <p>15 A. I left for personal reasons. My husband had a</p> <p>16 very bad accident and was not able to walk for</p> <p>17 several months and I needed to work remotely</p> <p>18 which was not something that Management Planning</p> <p>19 was set up to allow me to do so I found a</p> <p>20 position with Monument Economics Group.</p> <p>21 Q. The preceding item on your CV is Financial</p> <p>22 Markets Analysis LLC from 2001 to 2015?</p> <p>23 A. Yes.</p> <p>24 Q. What is Financial, or what was Financial Market</p> <p>25 Analysis LLC?</p>	<p style="text-align: right;">Page 24</p> <p>1 Q. What did you do in that role?</p> <p>2 A. It was a small firm so probably could have added</p> <p>3 a number of roles to what's listed here but one</p> <p>4 of the things that I did was performance</p> <p>5 attribution which is simply breaking down the</p> <p>6 source of returns to our clients and presented to</p> <p>7 clients on a quarterly basis, you know, their</p> <p>8 investment performance.</p> <p>9 I also helped to develop compliance</p> <p>10 procedures for the firm. I also had a role in</p> <p>11 working with the investment manager to test</p> <p>12 certain investment strategies.</p> <p>13 Q. Why did you leave Trilogy?</p> <p>14 A. I had previously worked with the folks at FMA and</p> <p>15 was asked to join them and that was very</p> <p>16 attractive to me.</p> <p>17 Q. Where had you previously worked with the people</p> <p>18 at Financial Markets Analysis?</p> <p>19 A. At Princeton Venture Research.</p> <p>20 Q. And that's the next item on your or the preceding</p> <p>21 item on your CV. From 1989 to 1998 you worked at</p> <p>22 Princeton Venture Research during that period; is</p> <p>23 that correct?</p> <p>24 A. I did.</p> <p>25 Q. What did you do there?</p>
<p style="text-align: right;">Page 23</p> <p>1 A. Financial Markets Analysis or FMA was a capital</p> <p>2 markets consulting group that was heavily a</p> <p>3 litigation services firm.</p> <p>4 Q. Did your role there primarily involve consulting</p> <p>5 for litigation?</p> <p>6 A. It did.</p> <p>7 Q. What percentage of your work there was consulting</p> <p>8 for litigation?</p> <p>9 A. Probably 85 percent if I had to put a number on</p> <p>10 it.</p> <p>11 Q. Why did you leave Financial Markets Analysis?</p> <p>12 A. The firm essentially dissolved.</p> <p>13 Q. Over the last two decades or so is it correct</p> <p>14 that your primary job has been to work as a</p> <p>15 consultant for litigation?</p> <p>16 MR. GRONBORG: Object to form.</p> <p>17 A. Yes.</p> <p>18 Q. Next item on your CV is Trilogy Capital</p> <p>19 Management from 2000 -- from 1998 to 2001. What</p> <p>20 was Trilogy?</p> <p>21 A. Trilogy was an alternative asset manager and also</p> <p>22 a hedge fund.</p> <p>23 Q. Your role there was director of marketing and</p> <p>24 client services; is that right?</p> <p>25 A. Yes.</p>	<p style="text-align: right;">Page 25</p> <p>1 A. Princeton Venture Research was, had essentially</p> <p>2 two separate divisions. One was a venture</p> <p>3 capital side of the business where we raised</p> <p>4 money and made our own investment in small</p> <p>5 technology startup companies, so on that side of</p> <p>6 the business I prepared discounted cash flow</p> <p>7 analyses and projections and valuations for tech</p> <p>8 companies and they also had a litigation</p> <p>9 consulting side of the business where I was an</p> <p>10 analyst, research analyst supporting the work</p> <p>11 that the folks did there.</p> <p>12 Q. So your work at Princeton Venture Research</p> <p>13 primarily related to providing expert consulting</p> <p>14 services for (connection interruption) plaintiffs</p> <p>15 in securities litigation; is that correct?</p> <p>16 MR. GRONBORG: Object to form.</p> <p>17 A. No.</p> <p>18 THE NOTARY: One moment.</p> <p>19 Mr. Ritts, I missed a word in your</p> <p>20 question. Could you repeat it?</p> <p>21 - - - -</p> <p>22 (Thereupon, a portion of the record</p> <p>23 was read by the Notary.)</p> <p>24 - - - -</p> <p>25 MR. RITTS: I'll withdraw the</p>

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<p style="text-align: right;">Page 26</p> <p>1 question.</p> <p>2 Q. What percentage of your work at Princeton Venture</p> <p>3 Research related to providing litigation</p> <p>4 consulting work?</p> <p>5 A. Maybe 50 percent.</p> <p>6 Q. At Princeton Venture Research did you assist</p> <p>7 testifying experts in securities cases?</p> <p>8 A. When you say assist, I would have done some</p> <p>9 analytical work or research, yes.</p> <p>10 Q. And were the experts who you assisted at</p> <p>11 Princeton Venture Research primarily serving as</p> <p>12 experts for plaintiffs in securities litigation?</p> <p>13 A. Yes.</p> <p>14 Q. Was Princeton Venture Research the first job you</p> <p>15 had where you were involved in litigation</p> <p>16 consulting?</p> <p>17 A. Yes.</p> <p>18 Q. Is Princeton Venture Research where you learned</p> <p>19 how to do litigation consulting in securities</p> <p>20 cases?</p> <p>21 A. It would have been where I learned how to apply</p> <p>22 fundamental valuation principles to</p> <p>23 litigation-related problems or issues.</p> <p>24 Q. Who were the testifying experts that you worked</p> <p>25 with at Princeton Venture Research?</p>	<p style="text-align: right;">Page 28</p> <p>1 MR. GRONBORG: Object to form.</p> <p>2 A. I don't know what he pleaded guilty to or not.</p> <p>3 Q. You're aware, though, that he pleaded guilty to</p> <p>4 criminal charges relating to expert work in</p> <p>5 securities cases?</p> <p>6 MR. GRONBORG: Object to form.</p> <p>7 A. Again I'm not aware specifically what he pleaded</p> <p>8 guilty to.</p> <p>9 Q. Financial Markets Analysis was founded by</p> <p>10 Mr. Torkelsen's former partners; is that right?</p> <p>11 A. Yes.</p> <p>12 Q. The --</p> <p>13 A. Excuse me. I'm sorry. Let me correct that.</p> <p>14 Mr. Torkelsen didn't have any partners so it was</p> <p>15 founded by folks that worked for Princeton</p> <p>16 Venture Research but they were not partners</p> <p>17 there.</p> <p>18 Q. The previous item on your CV is Prudential</p> <p>19 Securities from 1988 to 1989. What was your role</p> <p>20 there?</p> <p>21 A. I was assisting an investment manager. It was a</p> <p>22 job that was early in my career. I was a Series</p> <p>23 7 registered rep and a Series 3 registered rep</p> <p>24 and I did some trading and reporting for two</p> <p>25 investment managers there.</p>
<p style="text-align: right;">Page 27</p> <p>1 A. Primarily Candace Preston.</p> <p>2 Q. Anybody else?</p> <p>3 A. John Torkelsen.</p> <p>4 Q. He was the founder of the firm?</p> <p>5 A. He was.</p> <p>6 Q. Why did you leave Princeton Venture Research?</p> <p>7 A. I left Princeton Venture Research because I</p> <p>8 wanted to apply my skills and experience to</p> <p>9 investment management as opposed to consulting so</p> <p>10 there was an opportunity to join Trilogy Capital</p> <p>11 Management and I left.</p> <p>12 Q. Did you leave Princeton Venture Research around</p> <p>13 the time that it went out of business?</p> <p>14 A. So Princeton Venture Research, I believe</p> <p>15 Princeton Venture Research went out of business</p> <p>16 sometime in the early, maybe the early 2000s or</p> <p>17 mid 2000s and I left in 1998.</p> <p>18 Q. Okay. What happened to Princeton Venture</p> <p>19 Research?</p> <p>20 A. Princeton Venture Research became an investment</p> <p>21 advisor to SBA funds after I left the firm.</p> <p>22 Q. Is it correct that Mr. Torkelsen, the founder of</p> <p>23 Princeton Venture Research, pleaded guilty to</p> <p>24 perjury for submitting false testimony in</p> <p>25 securities cases?</p>	<p style="text-align: right;">Page 29</p> <p>1 Q. Fair to say you had a very junior position at</p> <p>2 Prudential?</p> <p>3 MR. GRONBORG: Object to form.</p> <p>4 A. Yes.</p> <p>5 Q. The previous item is Merrill Lynch 1987 to 1988.</p> <p>6 What did you do there?</p> <p>7 A. I handled accounts that were ESOP accounts where</p> <p>8 investors would call in if they had questions</p> <p>9 about their company's stock or if they wanted to</p> <p>10 buy or sell shares of their company stock.</p> <p>11 Q. Fair to say --</p> <p>12 A. Or if they had inquiries.</p> <p>13 Q. Is it fair to say that you had a very junior</p> <p>14 position at Merrill Lynch?</p> <p>15 MR. GRONBORG: Object to form.</p> <p>16 A. I would call it an entry-level position.</p> <p>17 Q. Turn to the next page of Exhibit FE 1, please.</p> <p>18 A. Sure.</p> <p>19 Q. Page 59 of 108, at the top. Is this a list of</p> <p>20 cases in which you submitted expert reports or</p> <p>21 testified during the past four years?</p> <p>22 A. It is.</p> <p>23 Q. Is this list complete?</p> <p>24 A. I believe so.</p> <p>25 Q. Are there any other --</p>

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<p style="text-align: right;">Page 30</p> <p>1 A. It was complete at the time it was submitted. 2 Q. Is it complete today? 3 A. No, because it doesn't reflect the report that 4 was submitted in this matter and I believe there 5 may have been one additional report that was 6 submitted since this was submitted in connection 7 with this litigation. 8 Q. What is that other matter? 9 A. It is, I submitted an expert report in an ERISA 10 matter involving MGM resorts. 11 Q. Are there any arbitration matters in the last 12 four years in which you've submitted reports or 13 provided testimony? 14 A. No. 15 Q. Have you done litigation consulting over the past 16 four years in matters where you have not either 17 testified or submitted an expert report? 18 A. Yes. 19 Q. So Exhibit 4 does not represent your entire 20 litigation consulting work over the last four 21 years; is that right? 22 A. It represents exactly what it says, which is 23 prior reports and testimony, not every matter 24 that I may have consulted on. 25 Q. Is it correct that in every one of the matters</p>	<p style="text-align: right;">Page 32</p> <p>1 A. Are you asking me to multiply my salary 2 compensation by the percentage of time that I 3 spent on this type of litigation? 4 Q. Sure. 5 A. I really haven't given that much thought. Maybe 6 somewhere in the vicinity of 100,000. 7 Q. Have you ever been engaged by the Robbins Geller 8 firm before? 9 A. Yes. 10 MR. GRONBORG: Objection. You're 11 asking her in her role as a testifying 12 expert? 13 MR. RITTS: Yes. 14 MR. GRONBORG: Thank you. 15 A. I was engaged in the Valeant Pharmaceuticals case 16 which appears on this list. I was engaged in 17 another matter where I have not been disclosed as 18 an expert and have not submitted a report so that 19 would not appear on this list so, I have, I was 20 engaged in the Luckin Coffee matter and I believe 21 that's it. 22 Q. Are there any other matters whether or not within 23 the prior four years in which you've been engaged 24 by Robbins Geller as an expert witness? 25 A. As a consulting witness or a consultant, yes; but</p>
<p style="text-align: right;">Page 31</p> <p>1 listed in Exhibit 4 to your report you testified 2 or submitted a report on behalf of the 3 plaintiffs? 4 A. Yes. 5 Q. Is it fair to say that the majority of your 6 litigation consulting work over the past four 7 years has been on behalf of plaintiffs? 8 A. Yes. 9 Q. What percentage of your litigation consulting 10 work over the last four years has been in matters 11 that relate to the securities law? 12 A. I would say approximately 60 percent if I had to 13 put a number on it. 14 Q. In all of your time working in litigation 15 consulting, how many occasions have you testified 16 or submitted a report on behalf of a defendant? 17 A. I have not. 18 Q. Exhibit 4 to your report only purports to list 19 reports and testimony over the past four years. 20 How many times in total over your entire career 21 have you submitted an expert report or testified 22 as an expert? 23 A. I would say approximately 20 to 25. 24 Q. How much money did you earn in 2021 serving as an 25 expert for plaintiffs?</p>	<p style="text-align: right;">Page 33</p> <p>1 not as a named expert. 2 Q. In any matter in which you were engaged by 3 Robbins Geller have you or your firm ever agreed 4 to reduce or forego any compensation? 5 A. No. 6 Q. In any matter where you've been engaged by 7 Robbins Geller have you ever agreed to any 8 reduction or write-off of your fees? 9 A. No. 10 Q. In any matter in which you were engaged by 11 Robbins Geller have you ever agreed not to submit 12 a bill? 13 A. No. 14 Q. For the matters that are listed on Exhibit 4 of 15 your expert report, in any of those matters have 16 you ever agreed to reduce or forego any of you or 17 your firm's compensation? 18 A. Only to the extent, there is one matter that I 19 can think of where there was an agreed-upon 20 budget in the engagement agreement and I may have 21 spent an hour or two over that budget and in that 22 case my firm would have agreed to essentially 23 write off the excess. 24 Q. Which matter was that? 25 A. I believe it was the Magna matter, Magna</p>

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<p style="text-align: right;">Page 34</p> <p>1 International.</p> <p>2 Q. Has any court ever excluded your opinion or found</p> <p>3 that it was not admissible into evidence either</p> <p>4 in whole or in part?</p> <p>5 A. Not that I'm aware.</p> <p>6 Q. Have you ever, not just in the last four years</p> <p>7 but ever, have you ever been retained to offer</p> <p>8 opinions on behalf of a plaintiff in support of a</p> <p>9 motion for class certification as you're doing</p> <p>10 here?</p> <p>11 A. Can you repeat that? I'm sorry.</p> <p>12 Q. Yes. Have you ever been retained to offer an</p> <p>13 opinion on behalf of a plaintiff in support of a</p> <p>14 motion for class certification?</p> <p>15 A. Yes.</p> <p>16 Q. How many times?</p> <p>17 A. Maybe two or three.</p> <p>18 Q. And what were those cases?</p> <p>19 A. You said not on this list?</p> <p>20 Q. Ever whether on this list or not.</p> <p>21 A. I was retained to offer an opinion on class</p> <p>22 certification in the Amyris, Inc. securities</p> <p>23 litigation, in the Valeant Pharmaceuticals</p> <p>24 securities litigation. In the UTi Worldwide</p> <p>25 litigation. In the Barrick Gold litigation and</p>	<p style="text-align: right;">Page 36</p> <p>1 related to the matters addressed in your report?</p> <p>2 A. I taught economics at a local community college</p> <p>3 for a few semesters.</p> <p>4 Q. Anything else?</p> <p>5 A. No.</p> <p>6 Q. Have you ever been invited to give any academic</p> <p>7 or professional lectures or speeches?</p> <p>8 A. Yes.</p> <p>9 Q. What were those?</p> <p>10 A. I've been invited to essentially give</p> <p>11 presentations or teach at Rutgers Business School</p> <p>12 on matters involving valuation and I have also</p> <p>13 been asked to give a, you know, a one-time</p> <p>14 course, class for Rutgers Law on securities</p> <p>15 litigation damages.</p> <p>16 Q. Tell me more about the lecture you gave at</p> <p>17 Rutgers Law School. What was that?</p> <p>18 MR. GRONBORG: Object to form.</p> <p>19 A. I was a guest lecturer for, giving a presentation</p> <p>20 on securities damages in 10(b)(5) cases.</p> <p>21 Q. Did you talk about what expert witnesses do in</p> <p>22 10(b)(5) cases on damages issues?</p> <p>23 A. No. I --</p> <p>24 Q. What --</p> <p>25 A. I more or less described how damages are</p>
<p style="text-align: right;">Page 35</p> <p>1 something that comes to mind that's not on this</p> <p>2 list is the China Media Express litigation.</p> <p>3 Q. In any of those cases, did the court deny the</p> <p>4 plaintiffs motion for class certification whether</p> <p>5 in whole or in part?</p> <p>6 A. Not that I know of.</p> <p>7 Q. Do you have an understanding of the plaintiffs</p> <p>8 claims in this case?</p> <p>9 A. I do.</p> <p>10 Q. What is your understanding?</p> <p>11 A. Plaintiffs allege that the prices of</p> <p>12 FirstEnergy's securities were inflated during the</p> <p>13 class period as a result of false or misleading</p> <p>14 information in the market regarding the bribery</p> <p>15 scheme.</p> <p>16 Q. Have you ever written any peer-reviewed articles</p> <p>17 or publications?</p> <p>18 A. No.</p> <p>19 Q. Have you ever written any articles or</p> <p>20 publications that were not peer-reviewed?</p> <p>21 A. No.</p> <p>22 Q. Did you write a dissertation or thesis for your</p> <p>23 MBA?</p> <p>24 A. No.</p> <p>25 Q. Have you ever taught any university courses</p>	<p style="text-align: right;">Page 37</p> <p>1 generally calculated, you know, given the</p> <p>2 parameters of the law and also the financial</p> <p>3 parameters.</p> <p>4 Q. And when did you give that lecture?</p> <p>5 A. Oh, it was a number of years ago. I would say</p> <p>6 probably five years ago.</p> <p>7 Q. Your CV at the bottom of Page 2 of the CV, which</p> <p>8 is Page 58 of 108 at the top, indicates that</p> <p>9 you're a member of the CFA Institute. Are you a</p> <p>10 current member of that?</p> <p>11 A. I am.</p> <p>12 Q. What did you have to do to become a member of the</p> <p>13 CFA Institute?</p> <p>14 A. As I described earlier, you, in order to obtain a</p> <p>15 CFA designation you have to complete the course</p> <p>16 of study and three consecutive exams in order to</p> <p>17 earn the designation and you are also, then you</p> <p>18 are a member of the CFA Institute.</p> <p>19 Q. Okay. That automatically happens if you pass the</p> <p>20 CFA exam?</p> <p>21 A. I believe so. You apply for it but that's the</p> <p>22 credential, so.</p> <p>23 Q. Your CV lists the National Association of</p> <p>24 Forensic Economists.</p> <p>25 Are you a current member of that?</p>

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<p style="text-align: right;">Page 38</p> <p>1 A. I am.</p> <p>2 Q. What did you have to do to become a member of the</p> <p>3 National Association of Forensic Economists?</p> <p>4 A. I don't believe that there is a, there's no</p> <p>5 testing requirement. You submit an application.</p> <p>6 They review your background to see that you're</p> <p>7 essentially working in the field and would have</p> <p>8 something to contribute to the membership and you</p> <p>9 pay a fee and they accept you.</p> <p>10 Q. Would you please turn to Exhibit 2 of your</p> <p>11 report? It's Page 53 of 108 on the top.</p> <p>12 A. Sure.</p> <p>13 Q. These are materials that you reviewed or relied</p> <p>14 upon in preparing your report?</p> <p>15 A. Yes.</p> <p>16 Q. Are there any other materials upon which you</p> <p>17 relied?</p> <p>18 A. I don't believe so.</p> <p>19 Q. What do you mean when you say you relied on these</p> <p>20 materials?</p> <p>21 A. Well, I either reviewed or relied upon them so</p> <p>22 some of them, you know, I may have quoted from a</p> <p>23 document to support an opinion in my report and</p> <p>24 those documents would be listed here. Other</p> <p>25 documents such as, you know, the voluminous set</p>	<p style="text-align: right;">Page 40</p> <p>1 word but there may have been parts of them that I</p> <p>2 re-reviewed.</p> <p>3 Q. So which ones?</p> <p>4 A. I believe I reviewed parts of the Petrobras</p> <p>5 Securities Litigation opinion and possibly</p> <p>6 Plumbers & Pipefitters.</p> <p>7 Q. For what purpose did you review parts of those</p> <p>8 opinions?</p> <p>9 A. Those two opinions are cited for, in different</p> <p>10 sections of my report and I just wanted to</p> <p>11 familiarize myself with them again.</p> <p>12 Q. Okay. For what purpose did you rely on those</p> <p>13 court opinions?</p> <p>14 A. All of them?</p> <p>15 MR. GRONBORG: Object to form.</p> <p>16 Q. The two you just mentioned, the Petrobras and</p> <p>17 Plumbers & Pipefitters.</p> <p>18 A. So in each of those opinions there's a discussion</p> <p>19 of a certain posture towards corporate debt</p> <p>20 securities and so to the extent that that was</p> <p>21 confirmatory of some of my opinions, they were</p> <p>22 included or cited in my report.</p> <p>23 Q. Exhibit 2 under the heading "Legal," lists the</p> <p>24 consolidated complaint in this action.</p> <p>25 Did you read the entire complaint?</p>
<p style="text-align: right;">Page 39</p> <p>1 of analyst reports, I may have reviewed them. I</p> <p>2 certainly didn't read them all and there may have</p> <p>3 been several that I do rely upon for some of my</p> <p>4 opinions.</p> <p>5 Q. Did you review any materials in the course of</p> <p>6 preparing your report that aren't listed in</p> <p>7 Exhibit 2?</p> <p>8 A. I may have looked at a textbook on investments to</p> <p>9 refresh my memory about something but it wasn't</p> <p>10 necessarily instrumental to my opinions here,</p> <p>11 forming my opinions here.</p> <p>12 Q. Anything else?</p> <p>13 A. Not that I can recall.</p> <p>14 Q. The first category of items listed on Exhibit 2</p> <p>15 are legal materials and underneath that there is</p> <p>16 a list of court cases.</p> <p>17 Did you read each one of these court opinions</p> <p>18 in the course of preparing your report?</p> <p>19 A. No. I have read them in the course of my career</p> <p>20 but I did not reread them to prepare this report.</p> <p>21 Q. Did you read any of them in the course of</p> <p>22 preparing this report?</p> <p>23 A. I did not read --</p> <p>24 MR. GRONBORG: Object to form.</p> <p>25 A. I did not read any of them from first to last</p>	<p style="text-align: right;">Page 41</p> <p>1 A. I did.</p> <p>2 Q. Exhibit 2 also lists "Opinion and Order dated</p> <p>3 March 7, 2022."</p> <p>4 Did you read that entire opinion and order?</p> <p>5 A. I did not.</p> <p>6 Q. Did you review any other documents filed in this</p> <p>7 case?</p> <p>8 A. I did not.</p> <p>9 Q. Did you review the plaintiffs class certification</p> <p>10 brief?</p> <p>11 A. I did not.</p> <p>12 Q. Did you review either a draft or the final</p> <p>13 version of Scott Dalrymple's expert report here?</p> <p>14 A. I did not.</p> <p>15 Q. Exhibit 2 also has a heading that says:</p> <p>16 "Academic Research, Articles and Reference</p> <p>17 Manuals."</p> <p>18 Do you see that?</p> <p>19 A. I do.</p> <p>20 Q. Did you read each of these in the course of</p> <p>21 preparing your report here?</p> <p>22 A. No.</p> <p>23 Q. Did you read any of them in the course of</p> <p>24 preparing your report here?</p> <p>25 A. Some of them are textbooks which of course I did</p>

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<p style="text-align: right;">Page 42</p> <p>1 not read the entire textbook.</p> <p>2 I believe I reviewed the Bessembinder Hendrik</p> <p>3 article regarding bid-ask spreads. I believe I</p> <p>4 reread the Hotchkiss Gergana article,</p> <p>5 "Determinants of Corporate Bond Trading: A</p> <p>6 Comprehensive Analysis," and I believe I reread</p> <p>7 the James Park article, "Bondholders and Security</p> <p>8 Class Actions," and everything else listed here I</p> <p>9 have previously read but did not reread in</p> <p>10 connection with forming my opinions that are set</p> <p>11 forth in the Jones report.</p> <p>12 Q. Why did you read the three articles that you just</p> <p>13 mentioned and not the other articles and research</p> <p>14 listed on Exhibit 2?</p> <p>15 MR. GRONBORG: Object to form.</p> <p>16 A. I don't recall.</p> <p>17 Q. Exhibit 2 indicates on Page 55 of 108 that you</p> <p>18 relied on an article by Ronen and Zhou.</p> <p>19 What did you rely upon that for?</p> <p>20 A. I believe that article discusses the</p> <p>21 responsiveness of prices in the corporate bond</p> <p>22 market to new information.</p> <p>23 Q. Exhibit 2 reflects that you relied upon several</p> <p>24 articles by Eugene Fama.</p> <p>25 What did you rely on them for?</p>	<p style="text-align: right;">Page 44</p> <p>1 Q. Are there any authors listed in the Exhibit 2</p> <p>2 whom you do not regard as expert in the field of</p> <p>3 economics and finance?</p> <p>4 A. I don't know that. I haven't given that thought.</p> <p>5 Q. Would you say that all of the authors of the</p> <p>6 works listed on Exhibit 2 are well respected in</p> <p>7 the field of economics and finance?</p> <p>8 MR. GRONBORG: Object to form.</p> <p>9 A. I don't care to generalize about whether or not</p> <p>10 they're well respected. I did review the</p> <p>11 articles and the research contained in the</p> <p>12 articles and I felt like they were a reliable</p> <p>13 reflection of the work that they did.</p> <p>14 Q. Exhibit 2 on Page 55 of 108 lists FirstEnergy</p> <p>15 Corporation SEC filings among your reliance</p> <p>16 materials?</p> <p>17 A. Yes.</p> <p>18 Q. You list forms 10-K and 10-Q filed from February</p> <p>19 21st, 2017 through December 31st, 2020.</p> <p>20 Did you actually read every 10-K --</p> <p>21 A. I did not. Sorry. I did not.</p> <p>22 I didn't mean to interrupt you. I'm sorry.</p> <p>23 Q. That's fine. I understand.</p> <p>24 Did you actually read every 10-Q that</p> <p>25 FirstEnergy Corp. filed?</p>
<p style="text-align: right;">Page 43</p> <p>1 A. Eugene Fama is essentially the godfather of the</p> <p>2 efficient market hypothesis so he wrote</p> <p>3 extensively on why the markets are efficient and</p> <p>4 his theory is the Nobel prize winning theory on</p> <p>5 the efficient market hypothesis.</p> <p>6 Q. Exhibit 2 indicates that you relied on an article</p> <p>7 by Burton Malkiel. What did you rely on that</p> <p>8 for?</p> <p>9 A. Burton Malkiel has done research which</p> <p>10 essentially shows that prices are generally a</p> <p>11 random walk which means you would do no better in</p> <p>12 terms of earning a return by, you know, doing</p> <p>13 extensive analysis as you would by throwing darts</p> <p>14 on a dart board because he says there's no</p> <p>15 information in past prices.</p> <p>16 Q. Do you consider all of the academic papers, books</p> <p>17 and articles that you list in Exhibit 2 as being</p> <p>18 reliable and authoritative?</p> <p>19 A. Yes.</p> <p>20 MR. GRONBORG: Object to form.</p> <p>21 Q. Do you consider the authors of all of the</p> <p>22 academic papers, books and articles in Exhibit 2</p> <p>23 as being experts in the field of economics and</p> <p>24 finance?</p> <p>25 A. I don't know that.</p>	<p style="text-align: right;">Page 45</p> <p>1 A. I did not. I reviewed parts of the 10-Ks and the</p> <p>2 10-Qs that are listed here.</p> <p>3 Q. What parts did you review?</p> <p>4 A. Generally if there was a new development in the</p> <p>5 management discussion section of a filing, I took</p> <p>6 a look at that and I would also briefly look at</p> <p>7 the financial disclosure section.</p> <p>8 Q. How did you decide to read those sections and not</p> <p>9 other sections of the SEC filings?</p> <p>10 A. The information contained in the forms 10-K and</p> <p>11 10-Q helped me to get an overview, if you will,</p> <p>12 of the company in general but there wasn't any</p> <p>13 information that was very relevant to my opinions</p> <p>14 expressed here so I didn't feel the need to</p> <p>15 review or read each of those documents from</p> <p>16 beginning to end.</p> <p>17 Q. Exhibit 2 also lists Form S-3ASR dated August 16,</p> <p>18 2019 and March 6th, 2018 and March 7th, 2018.</p> <p>19 Did you read those documents?</p> <p>20 A. Only to the extent that I wanted to know which</p> <p>21 securities were being registered pursuant to</p> <p>22 those forms.</p> <p>23 Q. Did you read any other FirstEnergy SEC filings?</p> <p>24 A. I did not.</p> <p>25 Q. The next item on Exhibit 2 or actually farther</p>

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<p style="text-align: right;">Page 46</p> <p>1 down on Page 55 of 108 in Exhibit 2 is</p> <p>2 "FirstEnergy Corporation News Articles" and it</p> <p>3 lists news articles obtained through a search of</p> <p>4 Dow Jones Factiva.</p> <p>5 What articles are those?</p> <p>6 A. That is a compendium of news articles that was</p> <p>7 provided to me by counsel and my understanding is</p> <p>8 that it was a comprehensive search of the Dow</p> <p>9 Jones Factiva database for all news articles</p> <p>10 during the class period which mentioned</p> <p>11 FirstEnergy.</p> <p>12 Q. Counsel selected the news articles that you</p> <p>13 reviewed; is that correct?</p> <p>14 MR. GRONBORG: Object to form.</p> <p>15 A. I asked for all of the news articles, not a</p> <p>16 selection of the news articles.</p> <p>17 Q. How many news articles did you review?</p> <p>18 A. At least a hundred.</p> <p>19 Q. Are the articles you reviewed listed anywhere in</p> <p>20 your report?</p> <p>21 A. They are not. I believe they were provided to</p> <p>22 you, though.</p> <p>23 Q. Going up one item on Exhibit 2, Page 55 of 108</p> <p>24 there's a reference to "FirstEnergy Corporation</p> <p>25 Analyst Reports" and a cross-reference to Exhibit</p>	<p style="text-align: right;">Page 48</p> <p>1 analyst reports from Refinitiv and I obtained the</p> <p>2 compendium of analyst reports from counsel.</p> <p>3 Q. So did you obtain all of the analyst reports that</p> <p>4 are listed in Exhibit 9 or not?</p> <p>5 A. I believe so.</p> <p>6 Q. Did you review them all?</p> <p>7 A. I did not.</p> <p>8 Q. Did you review any of them?</p> <p>9 A. I reviewed a substantial number of them.</p> <p>10 Q. How did you decide which ones to review?</p> <p>11 A. To the extent that they were helpful in</p> <p>12 identifying events of interest in my event study,</p> <p>13 I reviewed them.</p> <p>14 Q. And how did you determine which analyst reports</p> <p>15 were helpful in identifying events of interest in</p> <p>16 your event study?</p> <p>17 A. My event study focuses on events of interest</p> <p>18 towards the end of the class period so I</p> <p>19 essentially reviewed every analyst report issued</p> <p>20 during that time period.</p> <p>21 Q. Okay. So you --</p> <p>22 A. To --</p> <p>23 Q. I'm sorry. Go ahead, finish your answer.</p> <p>24 A. That's okay. To identify events that may have</p> <p>25 had credit-relevant information entering the</p>
<p style="text-align: right;">Page 47</p> <p>1 9 of your report for a list of analyst reports.</p> <p>2 If you'd turn to Exhibit 9 please, it begins</p> <p>3 on Page 89 of 108?</p> <p>4 A. Okay. Thank you. Okay.</p> <p>5 Q. What does Exhibit 9 reflect?</p> <p>6 A. Exhibit 9 reflects a list of all of the</p> <p>7 FirstEnergy analyst reports that have been</p> <p>8 archived by Refinitiv during the period February</p> <p>9 2017 through November of 2020.</p> <p>10 Q. So these are all of the analyst reports about</p> <p>11 FirstEnergy published during the class period?</p> <p>12 MR. GRONBORG: Object to form.</p> <p>13 A. I didn't say that. I said that this was a list</p> <p>14 of all of the analyst reports on FirstEnergy that</p> <p>15 have been archived by Refinitiv during this</p> <p>16 period of time.</p> <p>17 I don't know that there were other -- there</p> <p>18 may have been other analyst reports published</p> <p>19 that Refinitiv does not archive.</p> <p>20 Q. Okay. So what's Refinitiv?</p> <p>21 A. Refinitiv is the former Thomson Reuters.</p> <p>22 Q. And how did you obtain or did you obtain each of</p> <p>23 the analyst reports that's, that are listed on</p> <p>24 Exhibit 9?</p> <p>25 A. I did not obtain -- I obtained the list of</p>	<p style="text-align: right;">Page 49</p> <p>1 market.</p> <p>2 Q. So the analyst reports that you reviewed were</p> <p>3 around the four event dates that you looked at in</p> <p>4 your event study. Is that fair?</p> <p>5 A. Yes, but I also reviewed some analyst reports</p> <p>6 from earlier points in time to essentially verify</p> <p>7 some of the events throughout the class period</p> <p>8 that were mentioned in the complaint.</p> <p>9 Q. Which analyst reports from earlier points in time</p> <p>10 did you review?</p> <p>11 A. I don't recall. I didn't pick one analyst firm</p> <p>12 for example and say I'm going to review every</p> <p>13 JPMorgan report or I'm only going to look at the</p> <p>14 BFA reports. I looked at certain things that</p> <p>15 were happening throughout the class period and</p> <p>16 sort of randomly reviewed some analyst reports</p> <p>17 from earlier points in time.</p> <p>18 Q. Okay. And what were the earlier points in time</p> <p>19 that you focused on when you reviewed analyst</p> <p>20 reports during the class period?</p> <p>21 A. I was focusing on some issues regarding the FES</p> <p>22 bankruptcy and the posture of investors towards</p> <p>23 FirstEnergy, you know, trying to essentially spin</p> <p>24 off FES. That's one event that comes to mind.</p> <p>25 Q. Are there any others?</p>

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<p style="text-align: right;">Page 50</p> <p>1 A. Not that I can recall.</p> <p>2 Q. And what was your purpose in reviewing analyst</p> <p>3 reports issued at earlier points in time that</p> <p>4 touched upon the FES bankruptcy?</p> <p>5 A. To get an understanding of what investors were</p> <p>6 concerned about throughout the class period.</p> <p>7 Q. Are there any particular analyst reports on that</p> <p>8 topic that you regarded as particularly useful or</p> <p>9 instructive for that purpose?</p> <p>10 A. Not specifically.</p> <p>11 Q. Who are the plaintiffs in this case?</p> <p>12 A. The plaintiffs, one of the named plaintiffs is</p> <p>13 LACERA which is one of the largest public pension</p> <p>14 funds. I believe another named plaintiff is a</p> <p>15 Wisconsin pension fund and another is Amalgamated</p> <p>16 Bank which had a number of fixed income funds</p> <p>17 where they invested in FirstEnergy's Senior</p> <p>18 Notes.</p> <p>19 Q. Have you ever worked for any of the plaintiffs</p> <p>20 before?</p> <p>21 A. No.</p> <p>22 Q. Have you ever been engaged to do litigation</p> <p>23 related work on behalf of any of the plaintiffs</p> <p>24 before?</p> <p>25 A. I don't believe so.</p>	<p style="text-align: right;">Page 52</p> <p>1 no.</p> <p>2 Q. Before you signed your report did you check to</p> <p>3 see if you owned any FirstEnergy securities</p> <p>4 during the proposed class period?</p> <p>5 A. I knew that I did not.</p> <p>6 Q. Do you have any investments in other utility</p> <p>7 companies?</p> <p>8 A. Not individually.</p> <p>9 Q. Did you hold any investments in other utility</p> <p>10 companies during the proposed class period?</p> <p>11 A. Not individually.</p> <p>12 Q. Have you ever followed the utilities industry as</p> <p>13 an individual investor?</p> <p>14 A. No.</p> <p>15 Q. Do you hold yourself out as an expert in the</p> <p>16 utility industry?</p> <p>17 A. Not specifically.</p> <p>18 Q. Other than your CFA have you ever held any other</p> <p>19 professional certificates or licenses?</p> <p>20 A. Yes.</p> <p>21 Q. What, what are those?</p> <p>22 A. I was a FINRA registered Series 7 and Series 3</p> <p>23 representative.</p> <p>24 Q. During what period of time?</p> <p>25 A. In the 1987 to '95 or so time period.</p>
<p style="text-align: right;">Page 51</p> <p>1 Q. Have you ever spoken with anybody from any of the</p> <p>2 plaintiffs about this case?</p> <p>3 A. No.</p> <p>4 Q. Have you ever talked with anyone who worked at</p> <p>5 FirstEnergy about this case?</p> <p>6 A. No.</p> <p>7 Q. Have you ever talked with any other experts in</p> <p>8 the course of developing your opinions here?</p> <p>9 A. No.</p> <p>10 Q. Have you ever consulted for FirstEnergy?</p> <p>11 A. No.</p> <p>12 Q. Have you ever consulted for any utility company?</p> <p>13 A. No.</p> <p>14 Q. Have you ever owned any FirstEnergy securities?</p> <p>15 A. Not, not as an individual investment but it may</p> <p>16 have been in a mutual fund. Not sure.</p> <p>17 Q. Do you know whether you owned any FirstEnergy</p> <p>18 securities during the proposed class period here?</p> <p>19 A. Not, again, not outside of the possibility that a</p> <p>20 mutual fund that I own may have had some</p> <p>21 securities in their portfolio.</p> <p>22 Q. Do you know if you own any FirstEnergy securities</p> <p>23 today?</p> <p>24 A. I do not. Again unless it, unless the securities</p> <p>25 may be held by a mutual fund. Other than that,</p>	<p style="text-align: right;">Page 53</p> <p>1 Q. And what does it mean to be a Series 7 and Series</p> <p>2 3 representative?</p> <p>3 A. A Series 7 is a securities representative. You</p> <p>4 are essentially allowed to buy and sell equity</p> <p>5 securities, fixed income securities and</p> <p>6 derivative securities on behalf of clients.</p> <p>7 And a Series 3 is a registered commodities</p> <p>8 rep.</p> <p>9 Q. Have you held any other professional certificates</p> <p>10 or licenses beyond what you've mentioned?</p> <p>11 A. No.</p> <p>12 Q. Do you regard yourself as an expert in the</p> <p>13 corporate bond market?</p> <p>14 A. That's pretty broad. I regard myself as an</p> <p>15 expert in the valuation of fixed income</p> <p>16 securities which would include corporate bonds.</p> <p>17 Q. How did you acquire that expertise?</p> <p>18 A. I acquired the expertise through my training for</p> <p>19 the CFA designation and in the period of time</p> <p>20 prior to becoming an analyst when I was working</p> <p>21 for investment managers in the equity and fixed</p> <p>22 income markets.</p> <p>23 Q. You're referring to your work with Merrill Lynch</p> <p>24 and Prudential?</p> <p>25 A. Yes.</p>

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<p style="text-align: right;">Page 54</p> <p>1 Q. Have you ever been a recognized by a court as an 2 expert in the corporate bond market? 3 A. No, not specifically. 4 Q. Do you regard yourself as an expert in event 5 studies? 6 A. Yes. 7 Q. How did you acquire that expertise? 8 A. Over the last 25 years I have been conducting 9 event studies in conjunction with consulting and 10 expert work in securities litigation and I have 11 also utilized event studies in business valuation 12 modeling. 13 Q. When have you utilized event studies in business 14 valuation modeling? 15 A. Event studies are useful to determine, you know, 16 starting with a regression analysis is to 17 determine cause and effect with certain 18 advertising dollars spent and revenues earned and 19 so in making forecasts or projections the 20 regression analyses which underlie event studies 21 would be useful there. 22 Q. Have you conducted event studies as part of 23 business valuation engagements for paying 24 clients? 25 A. Yes. Yes. It -- my business valuation clients</p>	<p style="text-align: right;">Page 56</p> <p>1 you ever offered an opinion as to whether a 2 security traded in an efficient market? 3 A. Yes. 4 Q. How many times have you done that? 5 A. Well, it would have been in the same number of 6 cases where I provided an opinion on class 7 certification; so I think we said maybe 10 or 12? 8 I don't recall exactly but it would be in the 9 ballpark. 10 Q. If you look at Exhibit 4 to your report, the list 11 of cases over the last four years, did you offer 12 an opinion about market efficiency in any of 13 these cases? 14 A. Yes. Exhibit 4? 15 Q. Yes. In which of these cases did you offer an 16 opinion about market efficiency? 17 A. Sure. In the UTi Worldwide case. I'm trying, 18 I'm looking at the Barrick Gold Corporation case. 19 I don't believe it is required in Ontario but 20 I may have included it nevertheless. 21 The Valeant Pharmaceuticals case. And the 22 Amyris Securities Litigation case. 23 Q. Have you ever opined that a security did not 24 trade in an efficient market? 25 A. I have declined engagements or declined to</p>
<p style="text-align: right;">Page 55</p> <p>1 would not pay me specifically for an event study 2 but I would use the regression analysis to inform 3 projections that would then be useful or utilized 4 in coming to my conclusions in a business 5 valuation engagement. 6 Q. How many times have you performed event studies 7 that weren't part of a litigation consulting 8 engagement? 9 A. I really couldn't say. I've been doing this for 10 a long time. 11 MR. RITTS: We've been going for a 12 little more than an hour. Why don't we 13 take a break. Let's go off the record. 14 THE VIDEOGRAPHER: We're off the 15 record at 11:21 a.m. 16 - - - - 17 (Thereupon, a recess was had.) 18 - - - - 19 THE VIDEOGRAPHER: We are back on 20 the record at 11:31 a.m. 21 Q. Ms. Jones, do you have any devices or documents 22 now that you didn't have with you when you were 23 testifying before the break? 24 A. I do not. 25 Q. In prior cases where you acted as an expert have</p>	<p style="text-align: right;">Page 57</p> <p>1 provide an opinion on market efficiency if I did 2 not feel comfortable that the security 3 demonstrably traded in an efficient market so I 4 would not have provided an opinion but I have, 5 you know, at a consulting level provided the 6 opinion to counsel that I thought it would be 7 difficult to establish that the market was 8 efficient. 9 Q. You have never opined in an expert report or 10 expert testimony that a security did not trade in 11 an efficient market; is that correct? 12 A. That is correct. 13 Q. In any of the cases on Exhibit 4 did you offer an 14 opinion about whether a bond traded in an 15 efficient market? 16 A. Yes. In the Valeant Pharmaceuticals case. 17 Q. Going back before the last four years, have you 18 ever offered an expert opinion on whether a bond 19 traded in an efficient market? 20 A. I don't recall. I do recall having supported a 21 testifying expert that was not myself in a case 22 that involved analyzing the market for debt 23 securities. 24 Q. In the Valeant case that you referred to did you 25 follow the same analysis that you did here?</p>

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<p style="text-align: right;">Page 58</p> <p>1 A. When you say follow the same analysis, did I 2 apply the, you know, essentially modified Cammer 3 and Krogman factors to the specific trading data 4 for the Valeant Pharmaceutical notes? Yes. 5 Q. Did your methodology differ in any way between 6 the Valeant case and this case? 7 A. It likely did as the facts and circumstances 8 surrounding each case are unique. It wouldn't 9 have deviated greatly but, you know, we are 10 essentially guided by the data that we have and 11 the class period, you know, that is set forth in 12 the complaint, the time period for which the 13 FirstEnergy Senior Notes were issued and 14 outstanding so there are nuances in each case 15 that sort of dictate or give you parameters 16 around the type of analyses that you're able to 17 do. 18 Q. Of course the facts are different in every case; 19 but in considering whether bonds traded in an 20 efficient market was there anything different 21 about the methodology that you applied in the 22 Valeant case versus the one you applied here? 23 A. Again, not the overall set of criteria that I've 24 looked at. There may have been, you know, 25 differences in the application of a particular</p>	<p style="text-align: right;">Page 60</p> <p>1 selected the events of interest by reference to 2 whether they were credit-relevant or not. 3 Did you do the same thing in the Valeant 4 case? 5 A. Well, in the event study here, I am aware through 6 reading the complaint that there were a number of 7 events that plaintiffs allege may have had an 8 impact on the price of FirstEnergy's common 9 stock; however being tasked with identifying 10 events that may have impacted the price of the 11 Senior Notes, I reviewed the news articles and 12 analyst reports to identify events that may have 13 changed the credit posture of FirstEnergy. 14 In addition, given that FirstEnergy is a 15 Fortune 500 company with very little credit risk 16 at the time, I did not expect that there would be 17 numerous company-specific events that would have 18 a meaningful impact on the price of the Senior 19 Notes and I identified four events of interest 20 here. 21 Q. How is that different than what you did in the 22 Valeant case? 23 A. I think the selection or identification process 24 was similar in that it was, in both cases it was 25 informed by events that were outlined in the</p>
<p style="text-align: right;">Page 59</p> <p>1 Cammer factor, for example, due to different 2 facts and circumstances in the Valeant case. I 3 just don't recall. 4 Q. Did you do an event study in the Valeant case? 5 A. I did. 6 Q. Did the event study there differ in any way from 7 the event study here? 8 A. Did it differ in any way? I'm sure it did. I'm 9 sure there were a different -- for example, I'm 10 sure there were a different set of events that 11 were identified as events of interest. That 12 would be one difference. 13 Q. What else was different between the event study 14 you conducted in the Valeant case and the event 15 study you conducted here? 16 A. I really -- I don't recall. I haven't looked at 17 it in quite a while. 18 Q. Did you identify events of interest in a 19 different way in the Valeant case than you did 20 here? 21 A. I think it was similar if I recall in that the 22 events of interest were events that were 23 described in the Valeant Pharmaceuticals 24 complaint. 25 Q. In your event study here as I understand it, you</p>	<p style="text-align: right;">Page 61</p> <p>1 complaint where plaintiffs allege that the events 2 may have had an impact on the price of the common 3 stock and not every company-specific event that 4 affects the common stock is going to have any 5 influence or impact on the price of the debt 6 securities; so I can tell you that I read the 7 news articles and the analyst reports here to see 8 whether there was any, anything that sort of 9 changed investors' perception of the credit 10 profile of the company in FirstEnergy. 11 Q. Do you agree that the primary indicator of market 12 efficiencies for a security is the rapid 13 inclusion of relevant new information in the 14 press of the security? 15 MR. GRONBORG: Object to form. 16 A. I believe that overall you have to look at a 17 number of criteria and that if you look at a 18 comprehensive set of criteria, you essentially 19 arrive at evidence that weighs in favor of a 20 finding of efficiency or against a finding of 21 efficiency but that there's no bright line test. 22 So for example if, if there was a common 23 stock that reacted or had a significant change in 24 price upon an earning surprise but other than 25 that one indicator of market efficiency there was</p>

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<p style="text-align: right;">Page 62</p> <p>1 very little trading or turnover in the common 2 stock, there were no analysts writing about the 3 company during the class period, there were very 4 few market makers, I think that the price impact 5 alone wouldn't necessarily allow you to conclude 6 that there was evidence of market efficiency. 7 Q. When considering whether a security trades in an 8 efficient market, is there any, are there any 9 criteria that are more or less important than 10 others in reaching that conclusion? 11 A. So the, something that comes to mind is the 12 market maker criteria that's set forth in Cammer 13 and if you look at, if you read through that, it 14 essentially says well, if there's no volume 15 reporting for a security, then looking at the 16 number of market makers is very important. So 17 when you have volume reporting like we do here, I 18 think that the number of market makers may be 19 less relevant so I think it depends on the 20 circumstances and the characteristics of the 21 market that you're examining. 22 Q. Is the rapid inclusion of new relevant 23 information in the price of the security more 24 important or more relevant than other factors in 25 determining market efficiency?</p>	<p style="text-align: right;">Page 64</p> <p>1 Q. I am looking at Paragraph 84 right now and the 2 last two sentences of that paragraph read: 3 "Particularly, bond prices tend to react to 4 information that affects the probability or 5 likelihood of default. This information may 6 include earnings announcements, changes in 7 ratings by the credit rating agencies, and other 8 information impacting the risk of insolvency." 9 You mentioned earnings announcements in this 10 package here. Positive earnings announcements 11 would tend to lower the probability of default; 12 is that right? 13 A. Not necessarily. When I'm talking about earnings 14 announcements, I also in, at least in my mind am 15 including information about the financial 16 condition of the company so that, I wouldn't 17 expect, for example, a positive or a negative 18 earnings announcement in and of itself if it has 19 no impact on the financial condition of the 20 company to change the price of a bond. 21 Q. All else being equal, would you expect a bond 22 price to increase upon a positive earnings 23 announcement? 24 MR. GRONBORG: Object to form. 25 A. No.</p>
<p style="text-align: right;">Page 63</p> <p>1 A. Not necessarily. 2 Q. Is it ever? 3 A. Is it ever more important? 4 Q. Yes. 5 A. I don't know that I could speak to that. 6 Q. What type of information affects corporate bond 7 prices? 8 A. There's external information that affects 9 corporate bond prices such as what the yield on 10 the underlying risk-free rate and the spread 11 between risk-free securities and the corporate, 12 you know, the risk of the corporate bond itself, 13 so there are different yield spreads that affect 14 the price of the corporate bond and then there 15 are internal or company-specific types of 16 information that affect bond prices including 17 investors' perception of the default risk of a 18 company or the risk profile of a company or 19 whether the company has sound internal controls; 20 so there are external and internal or 21 company-specific factors that affect the price of 22 bonds. 23 Q. Please turn to Page 34 of your report. It's Page 24 37 of 108 at the top of Exhibit 1. 25 A. What paragraph number does it start with?</p>	<p style="text-align: right;">Page 65</p> <p>1 Q. You mentioned changes in ratings by the credit 2 rating agencies in Paragraph 84. Would you 3 expect an increase in a credit rating to be 4 associated with an increase in the bond price? 5 A. Not necessarily and I will, I will give an 6 example. 7 To the extent that a credit rating boosts the 8 company from being a high yield bond or to an 9 investment grade bond, it may increase the price 10 because of reduced risk and it may also increase 11 the price because there are a number of investors 12 that cannot hold a high yield bond by virtue of 13 their investment mandate so it may increase 14 demand for that security. 15 Q. Do you agree that changes in credit ratings can 16 affect bond prices? 17 A. Yes, they can. 18 Q. Do you agree that earnings announcements can 19 affect bond prices? 20 A. To the extent that the earnings announcement 21 informs a major change in financial condition, 22 it's possible. 23 Q. In Paragraph 84 you say other information 24 impacting the risk of insolvency can affect bond 25 prices.</p>

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<p style="text-align: right;">Page 66</p> <p>1 What other information?</p> <p>2 A. Oftentimes you'll see bond prices decline if a</p> <p>3 firm takes on a substantial amount of new debt so</p> <p>4 that would be another event that may impact or</p> <p>5 inform the risk of insolvency.</p> <p>6 Q. Okay. Other things that come to mind?</p> <p>7 A. In certain cases the risk of a potential fine or</p> <p>8 additional obligation may increase insolvency</p> <p>9 risk.</p> <p>10 Q. Can disclosure of a going concern qualification</p> <p>11 affect bond prices?</p> <p>12 MR. GRONBORG: Object to form.</p> <p>13 A. It wouldn't impact the, it would generally not</p> <p>14 impact the price if it was not unexpected.</p> <p>15 If it was a sudden going concern because of</p> <p>16 some other heightened risk, then I think that</p> <p>17 information would be relevant and would show up</p> <p>18 in other ways as well.</p> <p>19 Q. Can disclosure of breach of a debt agreement</p> <p>20 affect bond price?</p> <p>21 MR. GRONBORG: Object to form.</p> <p>22 A. Generally there's an event that precedes that so</p> <p>23 there's something, some event that occurs that</p> <p>24 puts the company in breach of a covenant and it's</p> <p>25 fairly common that, you know, the event itself</p>	<p style="text-align: right;">Page 68</p> <p>1 that.</p> <p>2 Q. Okay. But events that give rise to an actual or</p> <p>3 potential bankruptcy proceeding could affect the</p> <p>4 bond price?</p> <p>5 A. Perhaps.</p> <p>6 Q. Is there any other information that affects bond</p> <p>7 prices?</p> <p>8 A. Company-specific? There can be, you know,</p> <p>9 interest rate shocks, et cetera, changes in yield</p> <p>10 spreads, increases or decreases in the yields on</p> <p>11 similar bonds relative to a particular issue and</p> <p>12 I think, you know, we've essentially covered a</p> <p>13 lot of the events of interest when you're looking</p> <p>14 at doing an event study for corporate debt</p> <p>15 securities.</p> <p>16 Q. If a company's stock trades in an efficient</p> <p>17 market does that necessarily mean that all of its</p> <p>18 bonds also trade in an efficient market?</p> <p>19 A. No.</p> <p>20 Q. Why not?</p> <p>21 A. So just as you apply criteria to examine the</p> <p>22 market for a common stock, there are criteria to</p> <p>23 examine the market for the same company's debt</p> <p>24 securities. A company might have a debt security</p> <p>25 that is very small that is held by a few large</p>
<p style="text-align: right;">Page 67</p> <p>1 may cause a change to the bond price and then the</p> <p>2 subsequent -- okay, breach, you know, you're in</p> <p>3 breach of a covenant would sort of, it would sort</p> <p>4 of come after or, you know, be as a result of the</p> <p>5 event.</p> <p>6 Q. You mentioned that incurring new debt could</p> <p>7 affect bond price. By the same token can</p> <p>8 retiring existing debt affect a bond price or be</p> <p>9 relevant to probability or likelihood of default?</p> <p>10 A. Generally the retirement of debt is expected so I</p> <p>11 wouldn't think so; but in my experience a</p> <p>12 similar, a similar event that may affect the</p> <p>13 price of the bonds would be, let's use your prior</p> <p>14 example: So if there was a breach of a covenant</p> <p>15 but the company is able to fix that breach fairly</p> <p>16 quickly, then generally you might expect to see</p> <p>17 the bond price recover.</p> <p>18 Q. Can disclosure of an actual or potential</p> <p>19 bankruptcy proceeding affect a bond price?</p> <p>20 A. I would say not unless it's unknown or out of the</p> <p>21 blue or not expected or hasn't previously been</p> <p>22 disclosed where analysts looking at the company's</p> <p>23 financial condition say: This puts them in</p> <p>24 breach of their debt covenants or this increases</p> <p>25 the probability of bankruptcy or something like</p>	<p style="text-align: right;">Page 69</p> <p>1 institutions or that it doesn't trade very often.</p> <p>2 You may not see the turnover. You know, it</p> <p>3 doesn't necessarily mean that the price isn't</p> <p>4 incorporating all information but it's hard to</p> <p>5 test that if there's little to no trading in the</p> <p>6 bond but I wouldn't say that, you know, as a rule</p> <p>7 if the company's common stock traded in a</p> <p>8 efficient market all of its securities also</p> <p>9 traded in an efficient market.</p> <p>10 Q. Under what other circumstances might a market be</p> <p>11 efficient for a company's stock but not for its</p> <p>12 bonds?</p> <p>13 A. I think primarily in the structure, in the</p> <p>14 turnover, in the trading, in the number of</p> <p>15 participants, the number of market participants</p> <p>16 in those categories, I think they need to be</p> <p>17 examined.</p> <p>18 Q. Do all bonds trade in efficient markets?</p> <p>19 A. No.</p> <p>20 Q. Do bonds for all publicly traded companies trade</p> <p>21 in efficient markets?</p> <p>22 A. I don't know. I haven't examined that.</p> <p>23 Q. Do the bonds of all companies listed on the New</p> <p>24 York Stock Exchange trade in efficient markets?</p> <p>25 A. I couldn't make that general statement.</p>

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<p style="text-align: right;">Page 70</p> <p>1 Q. Do you need to analyze the market for a specific 2 security to determine whether the security trades 3 in an efficient market? 4 A. I believe so. 5 Q. Do you need to conduct an empirical analysis to 6 make a reliable determination about market 7 efficiency for a particular security? 8 MR. GRONBORG: Object to form. 9 A. Well, for any security? Are you saying for any 10 security do you have to conduct an empirical 11 analysis? 12 Q. Yes. For any given security do you have to 13 conduct an empirical analysis -- 14 A. Well, for litigation -- 15 Q. -- to make a determination -- 16 A. Well, for litigation purposes, yes, but for 17 investing purposes, I don't think so. I think 18 that, you know, there's been a lot written about, 19 you know, stocks that trade on the New York Stock 20 Exchange, stocks that trade on the NASDAQ. You 21 know, certain size company stock, it is 22 essentially presumed that they trade in an 23 efficient market. But for litigation purposes, 24 yes, there's a requirement that you examine the 25 market for each security.</p>	<p style="text-align: right;">Page 72</p> <p>1 essentially the same or have not changed 2 dramatically over time, then I think that if you 3 show that the security trades in an efficient 4 market today or yesterday, you can presume 5 without major changes that it traded in an 6 efficient market five years ago. 7 Q. But you need to evaluate the empirical data to 8 make that determination; is that right? 9 MR. GRONBORG: Object to form. 10 A. For what purpose? As an investor, no. 11 Q. No. For scientific purposes, for, from the 12 perspective of an expert in litigation, in 13 economics or finance who's trying to reach a 14 scientifically reliable conclusion about market 15 efficiency, you'd have to look at the data, 16 wouldn't you? 17 MR. GRONBORG: Object to form. 18 A. As I said, I think you'd have to look at the 19 underlying characteristics of the market and make 20 a, and make some determination. 21 Q. Can a bond's price sensitivity change over time? 22 A. Yes. In fact over the course of time as a bond 23 nears maturity, its price sensitivity essentially 24 automatically changes as duration changes. 25 Q. Can changes in credit ratings affect a bond's</p>
<p style="text-align: right;">Page 71</p> <p>1 Q. A security can trade in an efficient market at 2 one point in time but not at another point in 3 time; is that right? 4 A. Describe what you mean by that. I'm not sure 5 what you mean. 6 Q. That's fair. 7 So the fact that a security trades in an 8 efficient market today, does not mean that it 9 also traded in an efficient market five years 10 ago; is that right? 11 A. I think that that's fair. It may, may have -- 12 that's, I would agree with that hypothetical that 13 it doesn't necessarily mean that five years ago 14 it traded in an efficient market. 15 Q. You'd need to evaluate the data for the relevant 16 time periods to know whether the market was 17 efficient or not; is that right? 18 MR. GRONBORG: Object to form. 19 A. Or you could evaluate the characteristics of the 20 market five years ago relative to today or 21 yesterday and say: Okay. Were all these things 22 in place. Was their volume being reported. Was 23 there fluid price discovery five years ago. What 24 was the market cap five years ago, et cetera. 25 So if the conditions in the market are</p>	<p style="text-align: right;">Page 73</p> <p>1 price sensitivity? 2 A. So generally, generally speaking a high yield 3 bond is thought to be more price sensitive than 4 an investment grade bond so if it's that much of 5 a change, it may have some impact on sensitivity. 6 Q. Is it true that different bonds of the same 7 corporate issuer have different price 8 sensitivities and will generally respond to 9 information differently? 10 A. Yes. 11 Q. Why is that so? 12 A. Because they have different coupon rates and 13 different maturity rates and that is 14 determinative of price sensitivity in something 15 called duration. 16 Q. Are there any other reasons why different bonds 17 from the same issuer will respond to information 18 differently? 19 A. There's also some research that shows that 20 there's more trading in the more recently issued 21 bonds of a particular corporation than the bonds 22 that have been outstanding for a longer period of 23 time and so to the extent that the level of 24 trading or turnover has an impact on price 25 sensitivity, that would be, that would manifest</p>

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<p style="text-align: right;">Page 74</p> <p>1 in the different, in the age of the issue if you</p> <p>2 will.</p> <p>3 Q. You analyzed each of the FirstEnergy notes that</p> <p>4 you address in your report individually; is that</p> <p>5 right?</p> <p>6 A. Yes.</p> <p>7 Q. Why did you do that?</p> <p>8 A. Well, the primary reason is that they were issued</p> <p>9 during different periods in time during the class</p> <p>10 period so only one of the Senior Notes was</p> <p>11 outstanding in February of 2017. There were</p> <p>12 Senior Notes that were issued in June of '17, in</p> <p>13 February of 2020 and in June of 2020, so they</p> <p>14 didn't all have the same level of trading or you</p> <p>15 know, data available throughout the class period.</p> <p>16 Q. Could some bonds issued by a company trade in an</p> <p>17 efficient market while others do not?</p> <p>18 MR. GRONBORG: Object to form.</p> <p>19 A. I have not seen that in my studies but I'm not</p> <p>20 going to, I'm not going to, I'm not going to rule</p> <p>21 it out as a possibility. It's not something that</p> <p>22 I have seen.</p> <p>23 Q. In Paragraph 85 of your report which is on Page</p> <p>24 38 of 108 you say that "larger issues tend to</p> <p>25 trade more frequently, as do the most newly</p>	<p style="text-align: right;">Page 76</p> <p>1 less likely to trade in an efficient market.</p> <p>2 Q. You need to look at all of the data to make that</p> <p>3 determination, right?</p> <p>4 A. I think so.</p> <p>5 Q. In your report at Paragraph 34, which is on Page</p> <p>6 16 of 108, you refer to the Cammer case?</p> <p>7 A. I am not there yet. Yes.</p> <p>8 Q. Is it correct that the Cammer factors are</p> <p>9 applicable to common stock?</p> <p>10 A. Yes.</p> <p>11 Q. Why did you italicize the words "applicable to</p> <p>12 common stock" in Paragraph 34 of your report?</p> <p>13 A. To emphasize that the Cammer case applied certain</p> <p>14 criteria to a particular common stock and not to</p> <p>15 a fixed income security.</p> <p>16 Q. Okay. The Krogman factors likewise are</p> <p>17 applicable to common stock?</p> <p>18 A. Yes.</p> <p>19 Q. Is there any academic literature to support using</p> <p>20 the Cammer or Krogman factors other than Cammer</p> <p>21 factor number 5 to evaluate whether bonds trade</p> <p>22 in an efficient market?</p> <p>23 MR. GRONBORG: Object to form.</p> <p>24 A. One of the, one of the articles, actually I think</p> <p>25 two of the articles that I referenced in Exhibit</p>
<p style="text-align: right;">Page 75</p> <p>1 issued bonds in a series, leading to greater</p> <p>2 price responsiveness to new information."</p> <p>3 Is that a true statement?</p> <p>4 A. I think so.</p> <p>5 Q. So all else being equal, smaller or older bond</p> <p>6 issues are less likely to trade in an efficient</p> <p>7 market?</p> <p>8 MR. GRONBORG: Object to form.</p> <p>9 A. I wouldn't characterize it that way. I think</p> <p>10 you've mischaracterized what I've said here.</p> <p>11 So we're talking about price responsiveness,</p> <p>12 not market efficiency.</p> <p>13 Q. Okay. Is it the case that all else being equal</p> <p>14 smaller or older bond issues are less likely to</p> <p>15 trade in an efficient market?</p> <p>16 A. I wouldn't, I wouldn't make that statement</p> <p>17 either. I would say that it depends on the level</p> <p>18 of trading. It depends on the number of market</p> <p>19 participants that are providing quotes. You look</p> <p>20 at the cost of trading and the bid-ask spread, so</p> <p>21 I think you need to look at a number of different</p> <p>22 things.</p> <p>23 However, generally speaking smaller and older</p> <p>24 issues may be less price sensitive. That I would</p> <p>25 agree with but that doesn't mean that they are</p>	<p style="text-align: right;">Page 77</p> <p>1 2 is it? There's an article by Mr. Hartzmark and</p> <p>2 there's an article by James Park and I believe</p> <p>3 they talk about -- and maybe not Park but</p> <p>4 Hartzmark talks about the application of the</p> <p>5 Cammer and Krogman factors with modifications are</p> <p>6 reliable in making some determination as to the</p> <p>7 efficiency of the market for corporate debt</p> <p>8 securities.</p> <p>9 Q. Okay. Are there any other articles or studies in</p> <p>10 finance journals that support using the Cammer or</p> <p>11 Krogman factors other than Cammer factor number 5</p> <p>12 to evaluate whether bonds trade in efficient</p> <p>13 markets?</p> <p>14 MR. GRONBORG: Object to form.</p> <p>15 A. I'm not certain. I'm not certain.</p> <p>16 Q. Are each and every one of the Cammer and Krogman</p> <p>17 factors relevant to whether a bond trades in an</p> <p>18 efficient market?</p> <p>19 A. I believe if you take the approach that they need</p> <p>20 slight modifications, that they are relevant to</p> <p>21 determining market efficiency for bonds.</p> <p>22 Q. Are there any Cammer or Krogman factors that are</p> <p>23 not relevant to determining whether a bond trades</p> <p>24 in an efficient market?</p> <p>25 A. I wouldn't say not relevant. I would say they</p>

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<p style="text-align: right;">Page 78</p> <p>1 all have, they are all informative to some extent</p> <p>2 but that you have to consider the differences in</p> <p>3 the market and therefore you can't necessarily</p> <p>4 apply the bright line tests of each of the</p> <p>5 criteria and say, well I know this is, you know,</p> <p>6 turnover has to be one to two percent for a</p> <p>7 common stock and therefore it's got to be one to</p> <p>8 two percent for a corporate debt security when</p> <p>9 you know that in general almost 100 percent of</p> <p>10 the time a stock is going to trade and have</p> <p>11 volume every single available trading day while a</p> <p>12 debt security may only trade on 60 percent of the</p> <p>13 available trading days, so I think with</p> <p>14 modifications and knowing the differences in the</p> <p>15 structure of these markets, you can apply the</p> <p>16 Cammer and Krogman factors to assess the</p> <p>17 efficiency of the market for debt securities.</p> <p>18 Q. Are you aware of any peer-reviewed studies or</p> <p>19 articles that identify any factors other than the</p> <p>20 Cammer and Krogman factors to use when deciding</p> <p>21 whether a bond trades in an efficient market?</p> <p>22 A. Nothing comes to mind.</p> <p>23 Q. After analyzing the various Cammer and Krogman</p> <p>24 factors that you discuss in your report, how do</p> <p>25 you decide whether the market for a security is</p>	<p style="text-align: right;">Page 80</p> <p>1 evaluated for a particular factor because it</p> <p>2 didn't exist during the class period, then</p> <p>3 certainly I would rely less on that particular</p> <p>4 factor.</p> <p>5 Q. Turning again to your report, I'd like to direct</p> <p>6 your attention to Exhibit Number 1 to your report</p> <p>7 which is Page 52 of 108.</p> <p>8 A. Okay.</p> <p>9 Q. You analyzed eight FirstEnergy notes; is that</p> <p>10 correct?</p> <p>11 A. Yes.</p> <p>12 Q. They're the notes listed here on Exhibit 1?</p> <p>13 A. Yes.</p> <p>14 Q. Did you analyze any other FirstEnergy notes?</p> <p>15 A. No.</p> <p>16 Q. Did you try to determine how many distinct</p> <p>17 investors purchased each of the eight notes</p> <p>18 during the class period?</p> <p>19 A. No.</p> <p>20 Q. Did you try to determine how many investors</p> <p>21 purchased each note during the class period and</p> <p>22 held it through to the end of the class period?</p> <p>23 A. No.</p> <p>24 Q. Are the bonds listed in Exhibit 1, were they high</p> <p>25 yield bonds?</p>
<p style="text-align: right;">Page 79</p> <p>1 or is not efficient? Is it a matter of simply</p> <p>2 counting up the number of factors on each side?</p> <p>3 A. I don't think so. I think that I, at least my</p> <p>4 process is to take each of the Cammer and Krogman</p> <p>5 factors separately, make an analysis and then</p> <p>6 decide does the evidence weigh in favor of a</p> <p>7 finding of efficiency.</p> <p>8 And if you do that and you go through all of</p> <p>9 the factors, you can come to an informed</p> <p>10 conclusion about whether or not there is evidence</p> <p>11 for or against and which is more conclusive or</p> <p>12 which is more powerful.</p> <p>13 Q. What if three Cammer factors favor efficiency but</p> <p>14 two others don't? How do you weigh them against</p> <p>15 each other?</p> <p>16 A. I would need more information than that.</p> <p>17 Q. Are any of the Cammer factors --</p> <p>18 A. So for example. So for example, if the company</p> <p>19 didn't file an S-3 during the class period, in my</p> <p>20 mind that doesn't weigh against a finding of</p> <p>21 efficiency. They just didn't register any</p> <p>22 securities so it does depend on specifics.</p> <p>23 Q. So all the Cammer factors are not of equal</p> <p>24 importance in every case; is that right?</p> <p>25 A. Again, to the extent that there is no data to be</p>	<p style="text-align: right;">Page 81</p> <p>1 A. No.</p> <p>2 Q. One of the Cammer factors is whether an active</p> <p>3 trading market exists for a security; is that</p> <p>4 right?</p> <p>5 A. That's correct.</p> <p>6 Q. How does Cammer define an active market?</p> <p>7 A. Cammer sets forth certain parameters of turnover,</p> <p>8 turnover being average weekly volume divided by</p> <p>9 the number of shares outstanding for a particular</p> <p>10 stock and that's how they define an active</p> <p>11 market.</p> <p>12 Q. And at Paragraph 34 of your report, you state</p> <p>13 that average weekly trading of two percent or</p> <p>14 more of outstanding shares would justify a strong</p> <p>15 presumption that the market for the security is</p> <p>16 efficient and average trade, weekly trading of</p> <p>17 one percent would justify a substantial</p> <p>18 presumption of market efficiency for a stock; is</p> <p>19 that right?</p> <p>20 A. Did you have that backwards? This is Paragraph</p> <p>21 34?</p> <p>22 Q. Yeah, I'm looking at --</p> <p>23 A. Two percent is a strong -- okay.</p> <p>24 Q. Two percent is a strong presumption that the</p> <p>25 market for a stock is efficient and one percent</p>

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<p style="text-align: right;">Page 82</p> <p>1 is a substantial presumption that a market's</p> <p>2 efficient under Cammer?</p> <p>3 A. Yes.</p> <p>4 Q. Are there any peer-reviewed articles or studies</p> <p>5 in finance journals to support the two percent</p> <p>6 and the one percent cutoffs in Cammer?</p> <p>7 A. Not that I know of.</p> <p>8 Q. What does a strong presumption of market</p> <p>9 efficiency mean?</p> <p>10 A. I'm not here to interpret the court's criteria</p> <p>11 set forth in Cammer.</p> <p>12 Q. So you don't have an understanding of what a</p> <p>13 strong presumption of market efficiency means?</p> <p>14 A. Other than the plain meaning of the word</p> <p>15 "strong," no.</p> <p>16 Q. Is the same true for a substantial presumption of</p> <p>17 market efficiency?</p> <p>18 A. I'm sorry?</p> <p>19 Q. Is the same true for a, for what is a substantial</p> <p>20 presumption of market efficiency?</p> <p>21 A. I have no other interpretation other than the</p> <p>22 plain language meaning of the word "substantial."</p> <p>23 Q. Turning to Page 18 of your report, Paragraph 44.</p> <p>24 A. Okay.</p> <p>25 Q. Toward the bottom of Paragraph 44 you say that</p>	<p style="text-align: right;">Page 84</p> <p>1 securities are generally being traded by large</p> <p>2 banks and insurance companies and pension funds</p> <p>3 and common stock is much more, you know, held by</p> <p>4 individual retail investors as well as, you know,</p> <p>5 institutional investors so that may be a</p> <p>6 generality. I have not studied that but they do</p> <p>7 trade less frequently than common stock.</p> <p>8 Q. Would you turn to Page 15 of your report, please.</p> <p>9 It's Page 18 of 108.</p> <p>10 A. Okay.</p> <p>11 Q. In Paragraph 38 you include a table and cite a</p> <p>12 study about bond trading frequency?</p> <p>13 A. Yes.</p> <p>14 Q. That study covered the years 2000 to 2005; is</p> <p>15 that correct?</p> <p>16 A. That's correct.</p> <p>17 Q. You excluded 2000 and 2001 from the table because</p> <p>18 TRACE data was not available for those years?</p> <p>19 A. Yes.</p> <p>20 Q. Did you review any peer-reviewed articles or</p> <p>21 studies about bond trading frequency that</p> <p>22 analyzed more recent data than 2000 to 2005?</p> <p>23 A. I believe it may be discussed in the Hartzmark</p> <p>24 article that's referenced in my report but I</p> <p>25 don't recall seeing a numerical summary like the</p>
<p style="text-align: right;">Page 83</p> <p>1 turnover tests were designed with common stock in</p> <p>2 mind.</p> <p>3 What do you mean by that?</p> <p>4 A. These tests were established in a securities</p> <p>5 litigation where the subject security was a</p> <p>6 common stock, and again given my earlier answer</p> <p>7 that common stocks you would expect to trade</p> <p>8 every available trading day, corporate debt</p> <p>9 securities, as we've discussed, do not trade as</p> <p>10 frequently, do not trade as often and may not</p> <p>11 trade on every available trading day during a</p> <p>12 particular period.</p> <p>13 Q. Are there any peer-reviewed articles or studies</p> <p>14 in finance journals that show that turnover is</p> <p>15 important for evaluating whether a bond trades in</p> <p>16 an efficient market?</p> <p>17 A. I don't believe so.</p> <p>18 Q. Bonds trade differently than stocks; is that</p> <p>19 right?</p> <p>20 A. Yes, generally.</p> <p>21 Q. Generally speaking, bond trades are bigger and</p> <p>22 occur less frequently?</p> <p>23 A. I have not studied that bond trades in general</p> <p>24 are larger than common stock trades but you may</p> <p>25 make that inference given that corporate debt</p>	<p style="text-align: right;">Page 85</p> <p>1 one set forth in the table here which provides a</p> <p>2 nice breakdown of frequency of trading in the</p> <p>3 number of days and percentages.</p> <p>4 Q. The Hartzmark article isn't peer reviewed, is it?</p> <p>5 A. I don't know.</p> <p>6 Q. It was published in a student-edited law journal,</p> <p>7 wasn't it?</p> <p>8 A. I'm not certain.</p> <p>9 Q. Did you review any peer-reviewed articles or</p> <p>10 studies that analyzed bond trading frequency</p> <p>11 during the 2017 to 2020 time period?</p> <p>12 A. Not that I recall.</p> <p>13 Q. Do you know if bond trading changed at all from</p> <p>14 the 2000 to 2005 time period as compared to the</p> <p>15 2017 to 2020 time period?</p> <p>16 A. Can you be more specific? Changed in what way?</p> <p>17 Q. Has technology for trading improved?</p> <p>18 A. There have been improvements in technology in</p> <p>19 terms of automatic trading systems and, you know,</p> <p>20 electronic trading but it has been not as</p> <p>21 well-used as electronic trading in stocks so</p> <p>22 there has been some change in electronic trading</p> <p>23 in terms of the technology and the use of it but</p> <p>24 not a dramatic shift.</p> <p>25 Q. Has the frequency of trading increased from the</p>

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<p style="text-align: right;">Page 86</p> <p>1 2000 to 2005 period to the 2017 to 2020 time</p> <p>2 period?</p> <p>3 A. I'm sure that there has been some change in the</p> <p>4 frequency of trading.</p> <p>5 Q. Are you aware of the magnitude or the direction</p> <p>6 of that change?</p> <p>7 A. I am not.</p> <p>8 Q. Did you do anything to --</p> <p>9 A. Well, excuse me. I'm sorry.</p> <p>10 You said increase so that is directional.</p> <p>11 Q. But you don't know about the magnitude?</p> <p>12 A. I don't know the magnitude.</p> <p>13 Q. Did you do anything to test whether bond trading</p> <p>14 has changed since 2002 to 2005?</p> <p>15 A. I believe that there are charts in my report that</p> <p>16 show that there's been an increase in the dollar</p> <p>17 volume of bonds traded over time.</p> <p>18 Q. Where is that?</p> <p>19 A. It would be early in the report. So there are</p> <p>20 some charts on Page 11 of 108.</p> <p>21 Q. And those charts reflect changes in the amount of</p> <p>22 corporate debt outstanding and trading volume</p> <p>23 between 2013 and 2021; is that right?</p> <p>24 A. Correct.</p> <p>25 Q. Did you do anything to compare the frequency of</p>	<p style="text-align: right;">Page 88</p> <p>1 frequently than common stocks.</p> <p>2 Q. Looking at Paragraph 41 of your report on Page</p> <p>3 16, the next to last sentence on that page says:</p> <p>4 "On average, the FirstEnergy Senior Notes traded</p> <p>5 85.6 percent of the available trading days, which</p> <p>6 is significantly greater than the trading</p> <p>7 frequency of corporate bonds in general."</p> <p>8 You based that sentence on a comparison to</p> <p>9 the trading frequency of corporate bonds in the</p> <p>10 2002 to 2005 period, didn't you?</p> <p>11 MR. GRONBORG: Object to form.</p> <p>12 A. Yes.</p> <p>13 Q. You didn't attempt to determine the general</p> <p>14 trading frequency of bonds in the 2017 to 2020</p> <p>15 period, did you?</p> <p>16 A. I note from the chart that we just discussed on</p> <p>17 average daily trading volume that there has not</p> <p>18 been a dramatic increase at least over the time</p> <p>19 period beginning in 2013 from that chart.</p> <p>20 I also note that in previous studies of</p> <p>21 corporate bond data I've observed that the bonds</p> <p>22 do not trade every day during a particular time</p> <p>23 period or during the class period.</p> <p>24 I also note that in some of the prior cases</p> <p>25 securities litigations where bonds were the</p>
<p style="text-align: right;">Page 87</p> <p>1 bond trading in the 2017 to 2020 time period to</p> <p>2 the frequency of bond trading in the 2000 to 2005</p> <p>3 time period?</p> <p>4 A. No.</p> <p>5 Q. If bond trading increased from the 2002 to 2005</p> <p>6 period to the 2017 to 2020 period, then 2002 to</p> <p>7 2005 data wouldn't be appropriate for analyzing</p> <p>8 the trading of the notes here, would it?</p> <p>9 MR. GRONBORG: Object to form.</p> <p>10 A. Can you repeat that, please?</p> <p>11 Q. Sure. If bond trading increased from the 2002 to</p> <p>12 2005 period to the 2017 to 2020 period, then the</p> <p>13 2002 to 2005 data might not be appropriate for</p> <p>14 analyzing the trading of the notes here; is that</p> <p>15 right?</p> <p>16 MR. GRONBORG: Same objection.</p> <p>17 A. I don't know that those data were used, the 2002</p> <p>18 to 2005 data were used to analyze the Senior</p> <p>19 Notes here.</p> <p>20 Q. Why did you include the table on Page 15 of your</p> <p>21 report then if it's, if you didn't use it as part</p> <p>22 of your analysis?</p> <p>23 A. It's not part of my analysis. It's part of the</p> <p>24 support for the, for the proposition that</p> <p>25 corporate debt securities in general trade less</p>	<p style="text-align: right;">Page 89</p> <p>1 subject of the securities litigation, the</p> <p>2 frequency of trading for the debt securities</p> <p>3 where the market was found to be efficient was</p> <p>4 less than what I found here with FirstEnergy</p> <p>5 Senior Notes but I did not attempt to update the</p> <p>6 data from the table I'm relying on and I think</p> <p>7 it's plainly stated that these data are from 2002</p> <p>8 to 2005 and there may be an increase in the</p> <p>9 frequency of trading since that time period.</p> <p>10 Q. Looking at the table in Paragraph 38 of your</p> <p>11 report, you don't know what the numbers would be</p> <p>12 here for the period 2017 to 2020, do you?</p> <p>13 MR. GRONBORG: Object to form.</p> <p>14 A. I do not know.</p> <p>15 Q. You don't know whether the FirstEnergy notes</p> <p>16 traded more or less frequently than other</p> <p>17 corporate bonds in the 2017 to 2020 period, do</p> <p>18 you?</p> <p>19 A. I know that they traded more frequently than a</p> <p>20 number of the debt securities in other securities</p> <p>21 litigations where the market was found to be</p> <p>22 efficient. I do not know whether if that table</p> <p>23 was updated we would see an increase in the</p> <p>24 frequency of trading of corporate bonds; however,</p> <p>25 the difference between what was observed in 2005</p>

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<p style="text-align: right;">Page 90</p> <p>1 and what was observed over the 2017 to 2020</p> <p>2 period for FirstEnergy was a very large</p> <p>3 difference in frequency. It wasn't a small</p> <p>4 difference in frequency.</p> <p>5 Q. For any of the eight bonds that are listed in</p> <p>6 Exhibit 1 of your report, you can't say that that</p> <p>7 bond traded more frequently than 10 percent of</p> <p>8 the outstanding bonds or 20 percent or 50 percent</p> <p>9 or some other percentage of outstanding bonds</p> <p>10 during the class period, can you?</p> <p>11 A. I cannot.</p> <p>12 MR. GRONBORG: Object to form.</p> <p>13 Q. Could we turn to Exhibit 8 of your report? It's</p> <p>14 Page 88 of 108.</p> <p>15 Each column is one of the notes that you</p> <p>16 analyzed here; is that right?</p> <p>17 A. Yes.</p> <p>18 Q. And each row is a separate piece of information</p> <p>19 about each of the notes. I'd just like to run</p> <p>20 down and make sure I understand what each of the</p> <p>21 rows represent so the first row says: "Possible</p> <p>22 Days Count."</p> <p>23 What does that indicate?</p> <p>24 A. That is the number of days that the bond was</p> <p>25 issued and outstanding during the class period</p>	<p style="text-align: right;">Page 92</p> <p>1 terms of dollars or notes or what?</p> <p>2 A. Notes.</p> <p>3 Q. "Weeks Count." What does that mean?</p> <p>4 A. That's the number of weeks in that particular</p> <p>5 period.</p> <p>6 Q. That the bond was outstanding?</p> <p>7 A. Yep, yes.</p> <p>8 Q. "Average Weekly Volume." What is that?</p> <p>9 A. That is taking the daily volume essentially and</p> <p>10 converting it into the average weekly volume.</p> <p>11 Q. Did you do anything to adjust for weeks that had</p> <p>12 fewer than five trading days?</p> <p>13 A. No.</p> <p>14 Q. The next line is: "Turnover Percentage."</p> <p>15 What is that?</p> <p>16 A. And that is the average weekly volume divided by</p> <p>17 the issue amount.</p> <p>18 Q. So for --</p> <p>19 A. So that is essentially the measure that Cammer</p> <p>20 sets forth for common stock.</p> <p>21 Q. So for the note AK3 in the first column there,</p> <p>22 you divide 10.1 million by 300 million to get the</p> <p>23 turnover percentage; is that right?</p> <p>24 A. Correct, yes.</p> <p>25 Q. And then the last two lines: "Average Weekly</p>
<p style="text-align: right;">Page 91</p> <p>1 through November 24th, 2020.</p> <p>2 Q. The number of trading days; is that right?</p> <p>3 A. Correct, the number of, the number of bond market</p> <p>4 trading days, not stock market trading days.</p> <p>5 Q. Thank you. Okay. And then the next row is:</p> <p>6 "Days Traded."</p> <p>7 What does that indicate?</p> <p>8 A. That indicates the number of days where the</p> <p>9 individual security had volume and, a volume and</p> <p>10 price.</p> <p>11 Q. Okay. So the number of --</p> <p>12 A. Trading volume and price.</p> <p>13 Q. The number of days during the class period it</p> <p>14 actually traded?</p> <p>15 MR. GRONBORG: Object to form.</p> <p>16 A. Correct.</p> <p>17 Q. And then the third line is: "Days Traded</p> <p>18 Percentage."</p> <p>19 Is that just dividing line 2 by line 1?</p> <p>20 A. Yes. So that would be the frequency measure.</p> <p>21 Q. Okay. The next line is: "Average Daily Volume."</p> <p>22 What is that?</p> <p>23 A. Just as it says: It's the average daily volume</p> <p>24 for a particular security over that time period.</p> <p>25 Q. Okay. And volume of what? Is that expressed in</p>	<p style="text-align: right;">Page 93</p> <p>1 Volume Asterisk."</p> <p>2 What is that?</p> <p>3 A. So if you look at the footnote for the notes that</p> <p>4 are issued during the class period, the first</p> <p>5 week of trading is unusually high volume and were</p> <p>6 I to include that, it would bias the number</p> <p>7 upward, the turnover upward, so I eliminated the</p> <p>8 first week of trading, so for all but one of the</p> <p>9 eight Senior Notes, the first week's volume after</p> <p>10 they were issued is eliminated.</p> <p>11 Q. And "Turnover Percentage Asterisk" is the same as</p> <p>12 "Turnover Percentage" up above but you removed</p> <p>13 the first week of trading; is that right?</p> <p>14 A. That's correct.</p> <p>15 Q. Did you examine how each of these bonds' trading</p> <p>16 changed over time?</p> <p>17 A. Well, to the extent that I observed very high</p> <p>18 volume when they're initially offered, yes. Some</p> <p>19 of the notes were issued towards the end of the</p> <p>20 class period so there's not as much trading</p> <p>21 volume data so I'm not, I'm not -- beyond that</p> <p>22 I'm not sure what you're asking.</p> <p>23 Q. Okay. For the third column here, the third bond</p> <p>24 AH0, for example, you see that the average weekly</p> <p>25 volume figure taking out the first week is 19.3</p>

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<p style="text-align: right;">Page 94</p> <p>1 million dollars.</p> <p>2 Do you see that?</p> <p>3 A. Yes.</p> <p>4 Q. Do you know how many weeks out of the 179 weeks</p> <p>5 that that bond was traded that the volume was</p> <p>6 above 19.3 million?</p> <p>7 A. I don't.</p> <p>8 Q. Did you calculate the median trading volumes for</p> <p>9 any of the note?</p> <p>10 A. No.</p> <p>11 Q. Did you compare the trading volume for this note</p> <p>12 AH0 in 2017 to the trading volume in 2018 or 2019</p> <p>13 or 2020?</p> <p>14 A. No.</p> <p>15 Q. For any of the notes did you do that exercise?</p> <p>16 A. No.</p> <p>17 Q. Why did you eliminate the first week of trading</p> <p>18 for your analysis of turnover and frequency of</p> <p>19 trading?</p> <p>20 A. As I just explained, I observed that there was an</p> <p>21 unusually high amount of trading volume</p> <p>22 immediately following the issuance or offering of</p> <p>23 the bonds and to include that would essentially</p> <p>24 bias the results in favor of a finding of higher</p> <p>25 turnover.</p>	<p style="text-align: right;">Page 96</p> <p>1 percent?</p> <p>2 A. Yes.</p> <p>3 Q. That's below the Cammer benchmark even for a</p> <p>4 stock, isn't it?</p> <p>5 A. When you say "even for a stock," the Cammer</p> <p>6 benchmark is for common stocks and, yes, it's</p> <p>7 below the benchmark set forth by Cammer for</p> <p>8 common stocks.</p> <p>9 Q. Do you agree that the turnover percentage for</p> <p>10 note AC1 tends to support the conclusion that</p> <p>11 this bond did not trade in an efficient market?</p> <p>12 MR. GRONBORG: Object to form.</p> <p>13 A. No, because I also examined frequency and AC1</p> <p>14 traded on nearly 93 percent of the available</p> <p>15 trading days throughout that time period.</p> <p>16 Q. Does the turnover percentage for AC 1 cut against</p> <p>17 a finding of market efficiency for that note?</p> <p>18 A. Standing alone, I would say yes.</p> <p>19 Q. Let's look at Page 18 of your report. Paragraph</p> <p>20 44. This is Page 21 of 108 at the top.</p> <p>21 A. Okay.</p> <p>22 Q. Second sentence there says you calculated a</p> <p>23 weighted average turnover for all eight bonds of</p> <p>24 1.9 percent.</p> <p>25 Is a weighted average turnover for all eight</p>
<p style="text-align: right;">Page 95</p> <p>1 Q. I see. How did you decide to use one week as the</p> <p>2 cutoff?</p> <p>3 A. Based on my observation of the volume being</p> <p>4 unusually high for the first week, I used the</p> <p>5 first week essentially as a cutoff.</p> <p>6 Q. Is there any basis for that cutoff in</p> <p>7 peer-reviewed papers or studies?</p> <p>8 A. No.</p> <p>9 Q. Did you run any sensitivities to validate your</p> <p>10 choice of one week as the correct cutoff?</p> <p>11 A. No.</p> <p>12 Q. Did you consider a longer or shorter period?</p> <p>13 A. No.</p> <p>14 Q. Did you examine each bond individually to</p> <p>15 determine that one week was the appropriate</p> <p>16 cutoff for each one?</p> <p>17 A. Again, I observed for each one of the notes that</p> <p>18 was issued during the class period that the</p> <p>19 volume was unusually high in the first week that</p> <p>20 it was offered and I used one week to keep it</p> <p>21 consistent for all the Senior Notes.</p> <p>22 Q. I'm looking at the column for note AC1 now. Do</p> <p>23 you see that, looking at Exhibit Number 8?</p> <p>24 A. Yes.</p> <p>25 Q. Do you see there the turnover percentage is 0.4</p>	<p style="text-align: right;">Page 97</p> <p>1 bonds combined relevant here?</p> <p>2 A. I think it summarizes the data for all eight</p> <p>3 securities. If you wanted to say, okay, there's</p> <p>4 6.5 billion of these notes outstanding, let's</p> <p>5 take a look at the combined volume and the</p> <p>6 combined turnover, I think it summarizes it but</p> <p>7 certainly you have to set all the data out for</p> <p>8 each individual bond which I did set forth in the</p> <p>9 exhibit we just spoke about so there's no,</p> <p>10 there's no masking anything there.</p> <p>11 Q. Okay. You need to analyze the data for each</p> <p>12 security individually; is that right?</p> <p>13 A. I believe so, which I did.</p> <p>14 Q. Turn to the next page, please, Page 19. I'm</p> <p>15 sorry. Page 19 of 108 at the top. I'm looking</p> <p>16 at Paragraph 41 now. This is Page 16 on the</p> <p>17 bottom right corner.</p> <p>18 A. Okay.</p> <p>19 Q. Okay? At the beginning of this paragraph you say</p> <p>20 that the time period that you analyzed was from</p> <p>21 the beginning of the class period through</p> <p>22 November 24th, 2020.</p> <p>23 Is that correct?</p> <p>24 A. Yes.</p> <p>25 Q. So the beginning of the class period is February</p>

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<p style="text-align: right;">Page 98</p> <p>1 21st, 2017 so you analyzed the period February 2 21, 2017 through November 24th, 2020 and Exhibit 3 8 to your report shows the results of your 4 analysis for that time; is that right? 5 A. So I analyzed the Senior Notes for the days that 6 they were outstanding during the class period. 7 It would have been impossible to analyze data 8 that don't exist for securities that haven't been 9 issued so that's why each of the Senior Notes 10 has, not each of them but depending on when they 11 were issued, there is a distinct period of the 12 number of available trading days. 13 Q. I understand, and that's fair. 14 A. Okay. 15 Q. But for all eight notes your analysis went up to 16 November 24th, 2020; is that right? 17 A. Yes. 18 Q. And that's what's reflected in the results in 19 Exhibit 8; is that right? 20 A. Yes. 21 Q. I'm going to have placed in front of you another 22 exhibit. This is a backup file that you produced 23 for Exhibit 8 and if you refresh your exhibits 24 folder -- 25 A. Okay.</p>	<p style="text-align: right;">Page 100</p> <p>1 turnover percentage, average turnover percentage 2 taking out the first week of trading is 2.2 3 percent; is that right? 4 A. Yes. 5 Q. Now let's go back to Exhibit 8 that's attached to 6 your report that's Page 88 of 108 of your report. 7 In Exhibit 8 of your report the possible days 8 count is 195; is that correct? 9 A. I am not there yet. I'm sorry. 10 Q. Okay. It may be easier to look at the -- 11 A. I see it. I'm trying to click on it. I'm sorry. 12 Q. It may be easier to look at the paper version of 13 your report for comparison purposes. 14 A. Okay. 15 Q. Okay, so in Exhibit -- 16 A. Yes, its -- 17 Q. In Exhibit 8 of your report, the possible days 18 count for note AK3 is 195; is that correct? 19 A. Yes. 20 Q. The percentage of days traded for note AK3 is 21 65.6? 22 A. Yes. 23 Q. And the average weekly turnover taking out the 24 first week of trading is 2.6 percent; is that 25 right?</p>
<p style="text-align: right;">Page 99</p> <p>1 Q. -- I hope you will be able to see it. 2 A. Okay. 3 MR. RITTS: Okay. We need to mark 4 this as an exhibit. 5 MR. HARMANIS: It's marked in the 6 folder. 7 - - - - 8 (Thereupon, Exhibit FE 2, Jones Exhibit 8 9 spreadsheet, was marked for purposes of 10 identification.) 11 - - - - 12 Q. Okay. I've placed in front of you a document 13 that will be marked for identification purposes 14 as Exhibit FE 2. 15 Is this the backup file that you produced for 16 Exhibit 8? 17 A. It looks like it, yes. 18 Q. Let's start with the first note here which is 19 AK3. In row 931 for the possible days count it 20 says 170; is that right? 21 A. That's what it says, yes. 22 Q. Moving down two rows it says the percentage of 23 days traded is 62.4 percent; is that right? 24 A. Yes. 25 Q. And then at the bottom of the table it says the</p>	<p style="text-align: right;">Page 101</p> <p>1 A. Yes. 2 Q. If we look at the second note, which is AN7 3 looking at your backup file which is Exhibit FE 4 2, it says there that the possible days count is 5 96; is that right? 6 A. Yes. 7 Q. And Exhibit 8 of your report says the possible 8 days count is 121; is that right? 9 A. Yes. 10 Q. The backup file, Exhibit FE 2 for note AN7 says 11 the percentage of days traded is 77.1; is that 12 right? 13 A. Yes. 14 Q. And Exhibit 8 to your report says that the days 15 traded percentage for that note is 78.5 percent; 16 is that right? 17 A. Yes. 18 Q. The backup file for Exhibit 8 on the bottom line 19 the average turnover percentage taking out the 20 first week says it's 4.5 percent; is that right? 21 A. Yes. 22 Q. And it also says 4.5 percent in Exhibit 8; is 23 that right? 24 A. Yes. So it appears that you may, that I may have 25 sent you an old Excel file as a backup file.</p>

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<p style="text-align: right;">Page 102</p> <p>1 Q. And why is the backup file different from the,</p> <p>2 from Exhibit 8 to your report?</p> <p>3 A. It may have been an archived Excel file that was</p> <p>4 inadvertently sent to you.</p> <p>5 Q. How many different iterations of the turnover and</p> <p>6 trading frequency analysis did you perform before</p> <p>7 you finalized your report?</p> <p>8 A. I don't know. It would have been, the</p> <p>9 calculations would have been made, they would</p> <p>10 have been checked. We may have looked at</p> <p>11 different time periods and it appears that your</p> <p>12 backup file that I sent that I provided was an</p> <p>13 earlier version than what we adopted.</p> <p>14 Q. Okay. So you tested out different periods before</p> <p>15 you finalized what's set forth in Exhibit 8; is</p> <p>16 that right?</p> <p>17 A. We may have looked at the class period and then a</p> <p>18 period of time post class period consistent with</p> <p>19 events set forth in the complaint.</p> <p>20 Q. If you look at the backup to Exhibit 8 for this</p> <p>21 Exhibit FE 2 and you compare the bottom line</p> <p>22 average turnover percentage taking out the first</p> <p>23 week and you compare that to the final Exhibit 8,</p> <p>24 is it correct that all of the numbers on that</p> <p>25 line in the backup are either lower than or the</p>	<p style="text-align: right;">Page 104</p> <p>1 Q. It's in native format so...</p> <p>2 A. Is it functional?</p> <p>3 Q. Yes, it's functional. You should be able to</p> <p>4 unhide those lines.</p> <p>5 A. Let's see. I don't think so. I'm not able to</p> <p>6 open those rows from this version.</p> <p>7 If I view an Excel online that's an option.</p> <p>8 Can I do that? Does that work?</p> <p>9 Q. Yes, I'm sorry. Let me unmute myself. I think I</p> <p>10 can have my colleague share his screen.</p> <p>11 A. If I view in Excel online, can I make, can I open</p> <p>12 the rows?</p> <p>13 Q. You should be able to I think.</p> <p>14 A. Okay. I don't want to mess anything up but we're</p> <p>15 going to try it.</p> <p>16 Q. Okay. My colleague is sharing his screen now and</p> <p>17 he is able to --</p> <p>18 A. Okay.</p> <p>19 Q. So I'm looking now, this is Exhibit FE 2 in</p> <p>20 native form.</p> <p>21 If you unhide the lines between 9, row 9 and</p> <p>22 row 930. Okay? And it looks --</p> <p>23 A. Okay.</p> <p>24 Q. -- like column C here does, those are the</p> <p>25 dates --</p>
<p style="text-align: right;">Page 103</p> <p>1 same as what is in the final Exhibit 8?</p> <p>2 A. Yes, either the same as or lower.</p> <p>3 Q. And if you look at --</p> <p>4 A. But not, it wouldn't make -- it doesn't change</p> <p>5 whether or not they met the Cammer threshold or</p> <p>6 didn't meet the Cammer threshold.</p> <p>7 Q. If you look at the third line of the backup file</p> <p>8 days traded percentage and you compare that to</p> <p>9 the same line as Exhibit 8, is it correct that</p> <p>10 for all eight of the notes in the backup file it</p> <p>11 shows a lower days traded percentage than in the</p> <p>12 final Exhibit 8?</p> <p>13 A. Slightly so, yes.</p> <p>14 Again nothing that would make a difference in</p> <p>15 terms of reaching a conclusion that the frequency</p> <p>16 with which these notes traded was high relative</p> <p>17 to corporate bonds in general from the table that</p> <p>18 we spoke about earlier.</p> <p>19 Q. If we look at the backup file again, you see that</p> <p>20 the lines from line 9 to 930 are all hidden?</p> <p>21 A. Yes.</p> <p>22 Q. Then let's --</p> <p>23 MR. GRONBORG: Object to form.</p> <p>24 Q. Let's -- can you unhide those lines?</p> <p>25 A. I don't know that.</p>	<p style="text-align: right;">Page 105</p> <p>1 A. Okay.</p> <p>2 Q. -- that you analyzed; is that correct?</p> <p>3 A. Yes. I think those would be the available</p> <p>4 trading days.</p> <p>5 Q. Okay. And it starts on February 21st, 2017 which</p> <p>6 is the first day of the class period, right?</p> <p>7 A. Yes.</p> <p>8 Q. And if we scroll all the way down to row 922, the</p> <p>9 last day that appears is October 19th, 2020; is</p> <p>10 that right?</p> <p>11 A. Yes.</p> <p>12 Q. That's the last day that's included in the</p> <p>13 analysis on FE 2?</p> <p>14 A. Yes. Although is there any data for that time</p> <p>15 period?</p> <p>16 Q. There doesn't appear to be.</p> <p>17 Can you explain why you stopped the analysis</p> <p>18 on this date?</p> <p>19 A. No.</p> <p>20 MR. GRONBORG: Object to form.</p> <p>21 A. Again, this was an, obviously an archived version</p> <p>22 of this Excel spreadsheet and I'm not sure who</p> <p>23 performed the analysis or who stopped at a</p> <p>24 particular date and time but it doesn't even look</p> <p>25 like there's trading data for that time period so</p>

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<p style="text-align: right;">Page 106</p> <p>1 I'm not sure.</p> <p>2 Q. Did you consider any other end dates for your</p> <p>3 analysis besides November 24th and October 19th,</p> <p>4 2020?</p> <p>5 A. I recall that we may have considered the class</p> <p>6 period end date as a date to end the analysis.</p> <p>7 Q. And did you analyze the turnover and frequency of</p> <p>8 trading for the period ending at the close of the</p> <p>9 class period?</p> <p>10 A. I believe we did.</p> <p>11 Q. And what did that analysis show?</p> <p>12 A. I don't recall.</p> <p>13 Q. Was it the same as the results in Exhibit Number</p> <p>14 8?</p> <p>15 A. I'm sure it was different because there would be,</p> <p>16 especially for the notes that were issued in June</p> <p>17 and if we were, if we eliminate the first week of</p> <p>18 trading, it gives us very little data to work</p> <p>19 with so I'm sure the results would have been</p> <p>20 different.</p> <p>21 Q. I'd like to turn now to Paragraph 34b of your</p> <p>22 report.</p> <p>23 This is the top of Page 17 of 108.</p> <p>24 A. Paragraph 34?</p> <p>25 Q. Yes. 34b.</p>	<p style="text-align: right;">Page 108</p> <p>1 company in that litigation.</p> <p>2 Q. There isn't any peer-reviewed research that</p> <p>3 validates that number of 15 in Cammer; is that</p> <p>4 correct?</p> <p>5 A. Not that I'm aware of.</p> <p>6 Q. You mention in your report that there are around</p> <p>7 400 research reports about FirstEnergy published</p> <p>8 during the class period.</p> <p>9 How many of those reports dealt specifically</p> <p>10 with the notes that you analyzed in your report?</p> <p>11 A. I don't know the number but I know that ViaVet</p> <p>12 Global specifically had investment</p> <p>13 recommendations on the Senior Notes and I believe</p> <p>14 that JPMorgan also had specifically fixed income</p> <p>15 focused reports but I don't recall a number.</p> <p>16 Q. Okay. Are there any others that come to mind?</p> <p>17 A. Not that come to mind.</p> <p>18 Q. FirstEnergy had conference calls during the class</p> <p>19 period for investors; is that right?</p> <p>20 A. They did.</p> <p>21 Q. And also could ask questions of FirstEnergy</p> <p>22 during those calls; is that right?</p> <p>23 A. Yes.</p> <p>24 Q. Did you listen to any of those calls or read the</p> <p>25 transcripts?</p>
<p style="text-align: right;">Page 107</p> <p>1 A. Okay.</p> <p>2 Q. You say that one of the factors for considering</p> <p>3 market efficiency is whether a significant number</p> <p>4 of securities analysts follow and report on the</p> <p>5 subject security.</p> <p>6 Could a market for security be efficient even</p> <p>7 if a significant number of analysts do not report</p> <p>8 on that security?</p> <p>9 A. I think so.</p> <p>10 Q. Could a market be inefficient even if a</p> <p>11 significant number of analysts do report on that</p> <p>12 security?</p> <p>13 A. I think that would be unlikely but I wouldn't say</p> <p>14 it could never be inefficient if there were a</p> <p>15 large number of analysts.</p> <p>16 Q. Does the peer-reviewed literature establish any</p> <p>17 objective guidelines as to how many analysts</p> <p>18 coverage shows that the market for a security is</p> <p>19 efficient?</p> <p>20 A. I think we established that there's really no</p> <p>21 peer-reviewed literature that discusses the</p> <p>22 Cammer actors and how they are applied to</p> <p>23 different securities but I will say that it's my</p> <p>24 understanding that in the Cammer case there were</p> <p>25 15 analyst reports for coded sales of the subject</p>	<p style="text-align: right;">Page 109</p> <p>1 A. I looked at transcripts for some of them.</p> <p>2 Q. Did any of the calls where you read the</p> <p>3 transcripts address the FirstEnergy notes that</p> <p>4 you analyze in your report?</p> <p>5 A. The -- well, the calls address information that</p> <p>6 would be relevant to a fixed income investor but</p> <p>7 I don't recall management discussing their</p> <p>8 outstanding debt securities.</p> <p>9 Q. Okay. Your opinion is that the number of</p> <p>10 FirstEnergy research reports is consistent with</p> <p>11 the finding of market efficiency for the notes;</p> <p>12 is that right?</p> <p>13 A. That's right. I, given not only the number of</p> <p>14 reports but the consistency throughout the class</p> <p>15 period, in other words there weren't months that</p> <p>16 would go by during the class period when there</p> <p>17 wasn't an analyst report and given the diversity</p> <p>18 of the authors of the reports, you know, there</p> <p>19 are many different opinions coming into the</p> <p>20 market, I believe that lays in favor of a finding</p> <p>21 of efficiency.</p> <p>22 Q. How many reports need to exist for it to be</p> <p>23 consistent with a finding of market efficiency?</p> <p>24 MR. GRONBORG: Object to form.</p> <p>25 A. I think as I, I think as I just mentioned it's</p>

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<p style="text-align: right;">Page 110</p> <p>1 not just the number. You may have a very short</p> <p>2 class period where there's three analyst reports</p> <p>3 because of the, you know, the time span; but in</p> <p>4 general if you're looking at a long period of</p> <p>5 time, you like to see that there's consistent</p> <p>6 coverage, there's interest by the investment</p> <p>7 community by way of Q and A in these quarterly</p> <p>8 earnings calls and you like to see some diversity</p> <p>9 in the firms that are issuing the reports to get</p> <p>10 sort of a, you know, a mosaic of all different</p> <p>11 opinions on the security so it's not just a</p> <p>12 number and I don't think there's any bright line</p> <p>13 test.</p> <p>14 Q. Is there anything in the peer-reviewed literature</p> <p>15 that would allow you to set a threshold for a</p> <p>16 test?</p> <p>17 A. I think we've established that there's no</p> <p>18 peer-reviewed literature that I'm aware that goes</p> <p>19 through each of the Cammer and Krogman factors</p> <p>20 and sets forth a bright line test.</p> <p>21 Q. I'd like to direct your attention now to</p> <p>22 Paragraph 51 of your report. That's Page 23 of</p> <p>23 108.</p> <p>24 A. Five-one?</p> <p>25 Q. Five-one, yes, 51.</p>	<p style="text-align: right;">Page 112</p> <p>1 which price and volume discovery is readily</p> <p>2 available, the quantum of market makers is less</p> <p>3 relevant."</p> <p>4 A. Yes.</p> <p>5 Q. Is that a true statement?</p> <p>6 A. I believe so.</p> <p>7 Q. Is price and volume discovery readily available</p> <p>8 for listed stocks?</p> <p>9 A. Yes.</p> <p>10 Q. And why do you think the Cammer factors include</p> <p>11 the number of market makers?</p> <p>12 A. Because as Cammer says for over-the-counter</p> <p>13 markets without volume reporting, so Cammer was</p> <p>14 looking at market makers in lieu of having</p> <p>15 readily available price and volume reporting.</p> <p>16 Q. Okay. You say that market participants are</p> <p>17 tantamount to an established group of market</p> <p>18 makers for equity securities.</p> <p>19 What's your basis for that statement?</p> <p>20 A. You said market participants? Aren't you saying</p> <p>21 they are interchangeable with market makers for</p> <p>22 an equity security?</p> <p>23 Q. Well, I'm reading Paragraph 51 of your report.</p> <p>24 You see where it says "these dealers" and that's</p> <p>25 referring to market participants; is that right?</p>
<p style="text-align: right;">Page 111</p> <p>1 A. Five-one.</p> <p>2 MR. GRONBORG: Geoff, we've been</p> <p>3 going about an hour-and-a-half so I don't</p> <p>4 know if there's a convenient time for a</p> <p>5 break, can we take one?</p> <p>6 MR. RITTS: Yeah, I think we can</p> <p>7 break in five minutes or so.</p> <p>8 THE VIDEOGRAPHER: Now? Do you</p> <p>9 wish to go off now?</p> <p>10 Q. No. Five minutes or so we'll be ready.</p> <p>11 So looking at Paragraph 51 you indicate that</p> <p>12 a factor for considering efficiency for a</p> <p>13 security that trades in the over-the-counter</p> <p>14 markets is the number of market makers. Do you</p> <p>15 agree that there are no market makers for</p> <p>16 corporate debt securities?</p> <p>17 A. Not as defined in Cammer but the MPIDs or market</p> <p>18 participants or the broker dealers that are</p> <p>19 essentially providing quotes and making, you</p> <p>20 know, facilitating trading in debt securities are</p> <p>21 akin to a market maker but I do agree there are</p> <p>22 structural differences in the way stocks and</p> <p>23 bonds are traded.</p> <p>24 Q. In Paragraph 51 you say, starting on the fifth</p> <p>25 line: "With a security reported to TRACE, for</p>	<p style="text-align: right;">Page 113</p> <p>1 A. Uh-huh.</p> <p>2 Q. "Are tantamount to an established group of market</p> <p>3 makers for equity securities."</p> <p>4 And I'm asking: What is your basis for that</p> <p>5 statement?</p> <p>6 A. If you go a little further down in that</p> <p>7 paragraph, I reference The Handbook of Fixed</p> <p>8 Income Securities which has the pretty fair</p> <p>9 discussion of that dealers as market makers.</p> <p>10 Q. Looking at the next page, you calculated the</p> <p>11 number of unique market participants who reported</p> <p>12 trades to FINRA for each of the eight bonds in</p> <p>13 question; is that right?</p> <p>14 A. I did.</p> <p>15 Q. And are, is the number that appears on that table</p> <p>16 in the middle of Page 24 of 108, is that the</p> <p>17 aggregate number of market participants over the</p> <p>18 entire portion of the class period for which</p> <p>19 these bonds were trading?</p> <p>20 A. Yes.</p> <p>21 Q. Did you analyze how the number of market</p> <p>22 participants changed over time?</p> <p>23 A. I did not.</p> <p>24 Q. What number of market participants is enough to</p> <p>25 indicate that a bond traded in an efficient</p>

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<p style="text-align: right;">Page 114</p> <p>1 market?</p> <p>2 A. I don't think there's any bright line.</p> <p>3 Q. Okay. Is there any basis in the peer-reviewed</p> <p>4 literature to say that a certain number is or</p> <p>5 isn't enough to indicate market efficiency?</p> <p>6 A. I think we've established that there's no</p> <p>7 peer-reviewed literature that analyzes each of</p> <p>8 the Cammer and Krogman factors and sets forth a</p> <p>9 bright line test; but to the extent that we're</p> <p>10 looking to the Cammer decision for some</p> <p>11 guideline, the court there thought five to ten</p> <p>12 market makers was sufficient.</p> <p>13 Q. With respect to a common stock, right?</p> <p>14 A. Correct.</p> <p>15 Q. Up at the top of Page 21 of your report, the</p> <p>16 first sentence reads: "There is also</p> <p>17 considerable trading in the corporate debt market</p> <p>18 directly between large banks."</p> <p>19 Do you see that?</p> <p>20 A. Yes.</p> <p>21 Q. Was there considerable trading directly between</p> <p>22 large banks for the eight FirstEnergy notes that</p> <p>23 you considered?</p> <p>24 A. I wouldn't have those data.</p> <p>25 Q. Were there any arbitragers for the FirstEnergy</p>	<p style="text-align: right;">Page 116</p> <p>1 any of the Cammer factors were specific to</p> <p>2 analyzing the market for a debt security but it's</p> <p>3 one of the Cammer factors.</p> <p>4 Q. There weren't any peer-reviewed articles or</p> <p>5 studies in the finance literature that say that</p> <p>6 market capitalization is an indicator of market</p> <p>7 efficiency for a bond, are there?</p> <p>8 A. No, not that I'm aware.</p> <p>9 Q. On Page 23 of your report, Paragraph 58 it's Page</p> <p>10 26 of 108, you say at the top of Paragraph 58</p> <p>11 that market capitalization can be an indicator of</p> <p>12 market efficiency but that an objective threshold</p> <p>13 has not been quantified.</p> <p>14 So there is no objective number that supports</p> <p>15 a finding of market efficiency for a bond; is</p> <p>16 that right?</p> <p>17 A. That's correct.</p> <p>18 Q. How do you decide whether a company's market</p> <p>19 capitalization is large enough to indicate market</p> <p>20 efficiency for a bond?</p> <p>21 A. One of the indicators that I like to look at,</p> <p>22 first of all you can look at a company's market</p> <p>23 cap relative to other publicly traded companies</p> <p>24 and there are decile studies that break down all</p> <p>25 of the publicly traded companies by size of</p>
<p style="text-align: right;">Page 115</p> <p>1 notes that you analyzed?</p> <p>2 A. Not that I'm aware</p> <p>3 MR. RITTS: Okay We can go off</p> <p>4 the record</p> <p>5 THE VIDEOGRAPHER: We are off the</p> <p>6 record at 1:04 p m Eastern</p> <p>7 - - -</p> <p>8 (Thereupon, a recess was had)</p> <p>9 - - -</p> <p>10 THE VIDEOGRAPHER: We are back on</p> <p>11 the record at 1:50 p m</p> <p>12 AFTERNOON SESSION</p> <p>13 (Tuesday, July 19, 2022, 1:50 p m)</p> <p>14 - - -</p> <p>15 CONTINUED CROSS-EXAMINATION OF CYNTHIA JONES, CFA</p> <p>16 BY MR. RITTS:</p> <p>17 Q. Good afternoon, Ms. Jones</p> <p>18 A. Good afternoon</p> <p>19 Q. Do you have any documents or devices with you</p> <p>20 that you did not have when you were testifying</p> <p>21 earlier?</p> <p>22 A. I do not</p> <p>23 Q. Is market capitalization an indicator of market</p> <p>24 efficiency for a bond?</p> <p>25 A. It's one of the Cammer factors so I'm not sure</p>	<p style="text-align: right;">Page 117</p> <p>1 market cap so there is some scale that you can</p> <p>2 look at but it's my opinion that market cap is an</p> <p>3 indicator of whether or not the company is able</p> <p>4 to attract capital. Is it sizeable enough that</p> <p>5 it can attract capital so in terms of looking at</p> <p>6 if a company was, let's say it was a small cap</p> <p>7 company and, you know, standing alone it would</p> <p>8 not look like it would weigh in favor of a</p> <p>9 finding of efficiency, I'd like to see has the</p> <p>10 company been able to raise equity through a</p> <p>11 public offering, has the company been able to</p> <p>12 access a line of credit with a lending</p> <p>13 institution, has the company been able to issue</p> <p>14 debt securities to fund its operations or capital</p> <p>15 expenditures.</p> <p>16 So I think that you have to look sort of in</p> <p>17 the context of is the company so small that it's</p> <p>18 an impediment to attracting capital.</p> <p>19 Q. FirstEnergy's market capitalization varied over</p> <p>20 the class period here; is that right?</p> <p>21 A. It did. Most companies do.</p> <p>22 Q. Do you know what range it varied over?</p> <p>23 A. I believe the low during the class period was</p> <p>24 roughly 12 billion and the high was 30 plus</p> <p>25 billion.</p>

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<p style="text-align: right;">Page 118</p> <p>1 Q. Are there any peer-reviewed articles or studies 2 that indicate that any particular threshold of 3 market capitalization is an indicator of market 4 efficiency for bonds? 5 A. Not that I'm aware. 6 Q. Can a company with a small market cap have 7 securities that trade in an efficient market? 8 A. Sure. 9 Q. And how could you tell? 10 A. I think I just described how, what other 11 indicators I would look at relative to market cap 12 which is: Is the market cap so small that it's 13 an impediment to attracting capital. 14 Q. Could a company with a large market cap have some 15 securities that do not trade in an efficient 16 market? 17 A. Something that's a, you know, a Fortune 500 18 company like FirstEnergy, I would find that hard 19 to believe that its securities don't trade in an 20 efficient market but I wouldn't rule it out as a 21 possibility. 22 Q. You'd have to look at the data to make a 23 determination? 24 A. Sure. 25 Q. You analyzed the bid-ask spread for the eight</p>	<p style="text-align: right;">Page 120</p> <p>1 bid-ask spreads in the 2017 to 2020 time period? 2 A. I don't have evidence of that. 3 Q. Your analysis of the bid-ask spread for the 4 FirstEnergy notes only covered 2020; is that 5 right? 6 A. It covered one calendar year. 7 Q. And that was 2020; is that right? 8 A. Yes. 9 Q. You didn't analyze the bid-ask spread for the 10 FirstEnergy notes in 2017 or 2018 or 2019; is 11 that correct? 12 A. That's correct. 13 Q. Why didn't you do that? 14 A. I was trying to find the most common period of 15 time for the eight Senior Notes where they were 16 all trading and also I knew I was going to be 17 comparing the bid-ask spread over that period of 18 time not only to each of the notes amongst 19 themselves but I was going to make comparison of 20 the bid-ask spreads against a group of actively 21 traded corporate bonds. So for those reasons I 22 chose a one-year calendar period of 2020. 23 2020 was also as you know a period of extreme 24 volatility in the global securities markets so 25 standing alone without making some comparison to</p>
<p style="text-align: right;">Page 119</p> <p>1 FirstEnergy notes; is that right? 2 A. I did. 3 Q. And I'm looking now at Paragraph 68 of your 4 report on Page 28. You used a study covering the 5 period July 2002 to February 2004 as a benchmark 6 for comparing the bid-ask spread for the 7 FirstEnergy notes; is that correct? 8 A. No. I performed my own study of contemporaneous 9 bid-ask spreads on certain actively traded 10 corporate notes. 11 Q. Okay. And in, as indicated in the last sentence 12 on Paragraph 68 you reviewed a study concerning 13 trading in corporate bonds over the period July 14 2002 through February 2004 to -- 15 A. I did. 16 Q. -- get information about the bid-ask spreads 17 then? 18 A. Yes. 19 Q. Did you review any more recent studies on bid-ask 20 spreads? 21 A. No, not other than the one that I've prepared 22 here. 23 Q. Do you have any basis to conclude that bid-ask 24 spreads that prevailed in the July 2002 to 25 February 2004 period are representative of</p>	<p style="text-align: right;">Page 121</p> <p>1 other corporate debt securities, it may have 2 appeared that the spreads on the FirstEnergy 3 Senior Notes were wide or, you know, widening or 4 wide during certain periods of time in 2020 but I 5 think comparing them against a group of peers, if 6 you will, eliminates any bias there. 7 Q. You analyzed 14 corporate bonds besides 8 FirstEnergy's; is that right? And they're listed 9 in Paragraph 70 of your report? 10 A. Yes. 11 Q. How did you pick those 14 bonds? 12 A. They were a random selection. I looked at 13 FINRA's Fact Book for, in 2017 which as you know 14 is the beginning of the class period. I selected 15 seven corporate debt securities companies that 16 some of them were household names, large 17 companies, different industry groups, different 18 maturities, different coupons. 19 I did the same thing for a set of actively 20 traded bonds identified by FINRA in 2020. I 21 selected seven again. In selecting the 14 22 overall I wanted to make sure that I wasn't 23 selecting duplicates from the 2017 actively 24 traded group and the 2020 actively traded group. 25 Q. How did you pick the seven from each list from</p>

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<p style="text-align: right;">Page 122</p> <p>1 the 2017 list and the 2020 list? You looked at</p> <p>2 all of the 50 bonds on the list and you tried to</p> <p>3 choose ones that represented different industry</p> <p>4 groups, maturities and coupons? Is that -- am I</p> <p>5 understanding that right?</p> <p>6 A. Right. So in the group of 50 let's say there may</p> <p>7 have been four Ford Motor Company issues. I</p> <p>8 didn't want to pick duplicates so I picked,</p> <p>9 there's no magic number to seven, but I picked</p> <p>10 seven from each of the two groups of 50, again</p> <p>11 looking at a diverse group of industries, not</p> <p>12 duplicating the issuer, looking at maturity</p> <p>13 lengths, you know, between closer maturities,</p> <p>14 further maturities and coupons.</p> <p>15 Q. You didn't select the 14 bonds randomly. You</p> <p>16 used your judgment to select which 14 you were</p> <p>17 going to use; is that right?</p> <p>18 A. I wouldn't say judgment in that regard because I</p> <p>19 didn't, I didn't collect data for any of the 14.</p> <p>20 I didn't collect bid-ask data for anything other</p> <p>21 than these 14 securities so I wasn't selecting</p> <p>22 them based on any performance. I was selecting</p> <p>23 them based on criteria.</p> <p>24 Q. The selection wasn't random, though. You didn't</p> <p>25 just draw numbers out of the hat or throw</p>	<p style="text-align: right;">Page 124</p> <p>1 select a sample?</p> <p>2 A. To the extent that I'm trying to determine</p> <p>3 whether or not the bid-ask spreads were</p> <p>4 sufficiently small in terms of, you know, looking</p> <p>5 at the cost of trading the FirstEnergy bonds, the</p> <p>6 methodology where I'm first looking at the most</p> <p>7 actively traded bonds, I'm putting the</p> <p>8 FirstEnergy notes against not some random sample</p> <p>9 of any corporate bonds but the most actively</p> <p>10 traded which would be by virtue of that definition</p> <p>11 have the smallest bid-ask spreads. I believe</p> <p>12 that it was a very fair comparison and</p> <p>13 representation.</p> <p>14 Q. Are there any peer-reviewed studies or papers in</p> <p>15 the finance journals that would support your</p> <p>16 methodology for selecting a sample here?</p> <p>17 A. I don't believe so.</p> <p>18 Q. You mentioned that, did you do anything to test</p> <p>19 or to confirm that the sample that you selected</p> <p>20 was representative of the population?</p> <p>21 A. Other than look at the coupons, the maturities</p> <p>22 and the industry group, I suppose I could have</p> <p>23 selected a group of utility company bonds,</p> <p>24 whether or not they were the most actively traded</p> <p>25 but I believe that would have biased the results</p>
<p style="text-align: right;">Page 123</p> <p>1 darts --</p> <p>2 A. I didn't.</p> <p>3 Q. -- or something like that?</p> <p>4 A. I did not draw numbers out of a hat and had I</p> <p>5 done that, it's likely I would have picked</p> <p>6 duplicates.</p> <p>7 Q. Why didn't you just use the entire list of 50</p> <p>8 bonds for 2017 and 2020?</p> <p>9 A. Well, if you look at the lists, you'll notice</p> <p>10 that not all of the bonds are outstanding for the</p> <p>11 entire period of time that I looked at.</p> <p>12 Some of them aren't issued until later in</p> <p>13 terms of the 2020 selection so I felt like 14 was</p> <p>14 enough of a sample to get, and given that they</p> <p>15 are all in diverse industries with different</p> <p>16 maturities and different coupons, I felt like</p> <p>17 that was a robust sample.</p> <p>18 Q. Did you record your methodology for selecting</p> <p>19 that sample anywhere?</p> <p>20 A. I think I described it in my report.</p> <p>21 Q. A sample's supposed to be representative of a</p> <p>22 population that it represents; is that correct?</p> <p>23 MR. GRONBORG: Object to form.</p> <p>24 A. That's correct.</p> <p>25 Q. Is what you did a scientifically valid way to</p>	<p style="text-align: right;">Page 125</p> <p>1 in favor of a finding of efficiency so I</p> <p>2 essentially put the FirstEnergy Senior Notes</p> <p>3 against the best of the best to see whether or</p> <p>4 not the cost of trading the FirstEnergy notes</p> <p>5 would have been greater than the cost of trading</p> <p>6 any other actively traded security.</p> <p>7 Q. You mention in your report that economists</p> <p>8 sometimes use autocorrelation as a factor in</p> <p>9 considering whether a security trades in an</p> <p>10 efficient market; is that correct?</p> <p>11 A. I think that it's most often used to look at</p> <p>12 whether a stock trades in an efficient market. I</p> <p>13 don't think that experts in looking at the</p> <p>14 efficiency of the market for a debt security</p> <p>15 would find it particularly helpful.</p> <p>16 Q. What is autocorrelation?</p> <p>17 A. Autocorrelation means that there's information in</p> <p>18 successive prices so that today's price return is</p> <p>19 not independent of yesterday's price return.</p> <p>20 Q. Why is autocorrelation pertinent to market</p> <p>21 efficiency?</p> <p>22 A. In and of itself it's really not but if you had</p> <p>23 an extreme level of autocorrelation in a security</p> <p>24 and trading costs were low enough and you knew of</p> <p>25 the type of autocorrelation you had ahead of time</p>

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<p style="text-align: right;">Page 126</p> <p>1 and you could develop a trading model that would</p> <p>2 profit from the autocorrelation over time, it</p> <p>3 would be indicative that the price was reflecting</p> <p>4 something other than new information.</p> <p>5 Q. Do you think that autocorrelation has any bearing</p> <p>6 at all on whether a bond trades in an efficient</p> <p>7 market?</p> <p>8 A. No.</p> <p>9 Q. Why not?</p> <p>10 A. It is commonly expressed in the academic</p> <p>11 literature that debt securities routinely show</p> <p>12 autocorrelation.</p> <p>13 Q. You agree that under certain circumstances</p> <p>14 autocorrelation can indicate an inefficient</p> <p>15 market for a security; is that right?</p> <p>16 MR. GRONBORG: Object to form.</p> <p>17 A. I believe I was referring to in a common stock.</p> <p>18 Q. So autocorrelation never can be relevant under</p> <p>19 any circumstances to market efficiency for a debt</p> <p>20 instrument?</p> <p>21 MR. GRONBORG: Object to form.</p> <p>22 A. I have not seen a single study or an example of</p> <p>23 autocorrelation in the context of price returns</p> <p>24 for debt security that showed that the market was</p> <p>25 inefficient. Autocorrelation is a common</p>	<p style="text-align: right;">Page 128</p> <p>1 stock as to how much autocorrelation suggests</p> <p>2 market inefficiency?</p> <p>3 A. Not in and of itself.</p> <p>4 Q. Look at Paragraph 82 of your report, please.</p> <p>5 It's Page 37 of 108.</p> <p>6 You tested the Bloomberg U.S. Corporate Bond</p> <p>7 Index for autocorrelations; is that right?</p> <p>8 A. I did.</p> <p>9 Q. And found statistically significant</p> <p>10 autocorrelation in that index?</p> <p>11 A. I did.</p> <p>12 Q. What level of autocorrelation did you find?</p> <p>13 A. When you say "level," what are you referring to?</p> <p>14 Q. How did you measure it? You say that your</p> <p>15 analysis found statistically significant</p> <p>16 autocorrelation. What precisely did it find?</p> <p>17 A. Well, there are different indicators you look at</p> <p>18 in a regression analysis so I'm not sure which</p> <p>19 one you're referring to but -- and in any case I</p> <p>20 don't, I don't recall the exact level of</p> <p>21 autocorrelation.</p> <p>22 Q. Okay. Which indicator were you referring to in</p> <p>23 Paragraph 82 when you wrote that your statistical</p> <p>24 analysis found statistically significant</p> <p>25 autocorrelation?</p>
<p style="text-align: right;">Page 127</p> <p>1 phenomenon in the pricing and treating of</p> <p>2 corporate debt securities.</p> <p>3 Q. With respect to a stock, what level of</p> <p>4 autocorrelation suggests that the market for the</p> <p>5 stock is not efficient?</p> <p>6 A. It's not just the, it's not just the level or the</p> <p>7 existence of autocorrelation. It is: Is it</p> <p>8 identifiable ahead of time. Can you develop a</p> <p>9 trading model that would exploit the</p> <p>10 autocorrelation such that you would make</p> <p>11 risk-free profits and are trading costs low</p> <p>12 enough that you would generate that profit after</p> <p>13 all trading costs. Those are all factors.</p> <p>14 Autocorrelation may be present during certain</p> <p>15 time periods of let's say increased price</p> <p>16 volatility.</p> <p>17 It doesn't mean that you could have predicted</p> <p>18 it. It doesn't mean that you could have</p> <p>19 developed a trading model to capitalize on it.</p> <p>20 It doesn't mean trading costs would be low enough</p> <p>21 that it would be worth your while. So just the</p> <p>22 presence of autocorrelation alone would not</p> <p>23 indicate that it gives rise to a finding of</p> <p>24 inefficiency.</p> <p>25 Q. Are there any objective benchmarks that exist for</p>	<p style="text-align: right;">Page 129</p> <p>1 A. Sure. I looked at the correlation coefficient</p> <p>2 and I looked at the test statistic on the</p> <p>3 coefficient.</p> <p>4 Q. Thank you. What time period did you analyze?</p> <p>5 A. I believe I looked at the entire class period</p> <p>6 from February of 2021 through November of 2020.</p> <p>7 Q. Did you document your study or analysis in your</p> <p>8 report anywhere?</p> <p>9 A. I don't have the results in my report.</p> <p>10 Q. The bond index, the Bloomberg U.S. Corporate Bond</p> <p>11 Index is an aggregate of thousands of bonds; is</p> <p>12 that right?</p> <p>13 A. It is.</p> <p>14 Q. Does it include FirstEnergy's bonds?</p> <p>15 A. I'm not certain if they're a constituent or not.</p> <p>16 Q. Did you analyze whether any of the individual</p> <p>17 bonds in this case exhibited autocorrelation?</p> <p>18 A. I asked one of the members of my staff to start</p> <p>19 preparing those regression analyses but I didn't</p> <p>20 ultimately review the results and I'm not certain</p> <p>21 that they completed the analysis for all eight of</p> <p>22 FirstEnergy's Senior Notes because at the same</p> <p>23 time I was doing my calculations for the</p> <p>24 Bloomberg U.S. Corporate Bond Index and not</p> <p>25 surprisingly found a significant level of</p>

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<p style="text-align: right;">Page 130</p> <p>1 autocorrelation and discontinued any analysis of</p> <p>2 the individual securities.</p> <p>3 Q. So you directed the members of your team to stop</p> <p>4 analyzing possible autocorrelation in the</p> <p>5 FirstEnergy bonds; is that right?</p> <p>6 MR. GRONBORG: Object to form.</p> <p>7 A. Yes.</p> <p>8 Q. You don't know whether any of the individual</p> <p>9 FirstEnergy bonds exhibited autocorrelation that</p> <p>10 was higher than the bond index; is that right?</p> <p>11 A. I do not know that.</p> <p>12 Q. If one of the FirstEnergy bonds exhibited</p> <p>13 autocorrelation that was far above the bond</p> <p>14 index, that would tend to indicate an inefficient</p> <p>15 market, wouldn't it?</p> <p>16 MR. GRONBORG: Object to form.</p> <p>17 A. Not in my opinion.</p> <p>18 Q. But you could test --</p> <p>19 A. Just as -- I was going to say just as if any of</p> <p>20 the eight had exhibited no autocorrelation, I</p> <p>21 would not have concluded that that said anything</p> <p>22 about market efficiency in a positive way.</p> <p>23 Q. You could have analyzed all eight of the</p> <p>24 FirstEnergy bonds to see whether there was a</p> <p>25 statistically significant difference between</p>	<p style="text-align: right;">Page 132</p> <p>1 Q. An event study seeks to determine the reaction of</p> <p>2 a security price to disclosure of new information</p> <p>3 specific to the company in question; is that</p> <p>4 right?</p> <p>5 MR. GRONBORG: Object to form.</p> <p>6 A. That's fair.</p> <p>7 Q. The disclosure of new information is the event</p> <p>8 that's being studied?</p> <p>9 MR. GRONBORG: Object to form.</p> <p>10 A. Yes.</p> <p>11 Q. What happens if multiple events happen on the</p> <p>12 same day? An event study can only identify the</p> <p>13 cumulative impact of those events; is that right?</p> <p>14 MR. GRONBORG: Object to form.</p> <p>15 A. Generally speaking, yes.</p> <p>16 Q. An event study can't isolate the price impact of</p> <p>17 multiple events if they all occur on the same</p> <p>18 day, correct?</p> <p>19 MR. GRONBORG: Object to form.</p> <p>20 A. Not standing alone.</p> <p>21 Q. You'd need some other method to separate out the</p> <p>22 individual impacts; is that correct?</p> <p>23 A. Yes. There are numerous methods to parse out</p> <p>24 confounding information.</p> <p>25 Q. Hypothetically if a company disclosed three new</p>
<p style="text-align: right;">Page 131</p> <p>1 their autocorrelation and the Bloomberg index but</p> <p>2 you chose not to; is that right?</p> <p>3 A. It wouldn't have provided any information that</p> <p>4 would have helped me to arrive at my conclusion;</p> <p>5 so for example if three of the FirstEnergy Senior</p> <p>6 Notes showed no correlation, I would not conclude</p> <p>7 that they're any more efficient than the</p> <p>8 thousands of bonds in the U.S. Corporate Bond</p> <p>9 Index.</p> <p>10 Q. So if you had found that some of the FirstEnergy</p> <p>11 notes had no autocorrelation at all while other</p> <p>12 notes had autocorrelation that was way above the</p> <p>13 Bloomberg index, you would have considered that</p> <p>14 completely irrelevant information?</p> <p>15 MR. GRONBORG: Object to form.</p> <p>16 A. Yes. I would, I would find -- the presence of</p> <p>17 autocorrelation in corporate bond pricing is well</p> <p>18 known, well documented and in my opinion has no</p> <p>19 bearing on whether or not the bond is traded in</p> <p>20 an efficient market.</p> <p>21 So I wouldn't champion notes that are, show</p> <p>22 no autocorrelation and I wouldn't penalize notes</p> <p>23 that show autocorrelation.</p> <p>24 I don't think it has any bearing or relevance</p> <p>25 on the efficiency of the market for bonds.</p>	<p style="text-align: right;">Page 133</p> <p>1 items of information at the same time and the</p> <p>2 abnormal price change was positive \$1 an event</p> <p>3 study could not by itself show that the first</p> <p>4 disclosure caused 50 percent of the abnormal</p> <p>5 change and that the second and third disclosures</p> <p>6 each caused 25 cents of abnormal change; is that</p> <p>7 right?</p> <p>8 A. I would agree with that.</p> <p>9 Q. An event study would just allow you to conclude</p> <p>10 that the three disclosures altogether caused a \$1</p> <p>11 increase in price; is that right?</p> <p>12 MR. GRONBORG: Object to form.</p> <p>13 A. Not exactly. That's not exactly right because</p> <p>14 you haven't established that the three</p> <p>15 disclosures all contained material information.</p> <p>16 Q. If a company had an unexpectedly poor earnings</p> <p>17 announcement and a decrease in its credit rating</p> <p>18 at the same time and its abnormal price change</p> <p>19 was negative \$1, an event study couldn't show</p> <p>20 that the credit rating change caused 75 cents of</p> <p>21 the abnormal change and that the earnings</p> <p>22 announcement caused 25 cents of the abnormal</p> <p>23 change, could it?</p> <p>24 MR. GRONBORG: Object to form.</p> <p>25 A. It's more likely that the earnings announcement</p>

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<p style="text-align: right;">Page 134</p> <p>1 coupled with other information caused the credit 2 rating change so in that case the credit rating 3 change could be 100 percent responsible for the 4 price change. 5 Q. But the event study wouldn't allow you to parse 6 the effects of the different events. You'd need 7 other tools; is that right? 8 A. If a parsing was necessary is what I'm saying. 9 It may not be necessary to parse in a case such 10 as that. 11 Q. In an event study what result is required to show 12 that the market for a particular security is 13 efficient? 14 MR. GRONBORG: Object to form. 15 A. I'm not sure I understand "what result," the term 16 "what result." 17 Q. If you test multiple days during a period, how 18 many days need to show statistically significant 19 residual price movement to indicate market 20 efficiency for a security? 21 A. I don't think there's any predefined threshold or 22 threshold in the academic literature. I think 23 it's on a case-by-case basis and you've got to 24 look at everything in context. 25 Q. Let's say you test ten event days over a</p>	<p style="text-align: right;">Page 136</p> <p>1 the market that you hypothesized may have 2 impacted the price. So each event study is 3 unique in that it is, your control period may be 4 a different time period, your number of 5 observations are dictated by a number of factors 6 including how many announcements were made, how 7 many unexpected announcements were made. These 8 are all things that are unique to the 9 circumstances of the subject company. 10 Q. Is it fair to say that the more events that one 11 evaluates over a given period, the more robust 12 the conclusion about market efficiency or not 13 would be? 14 MR. GRONBORG: Object to form. 15 A. I guess what I'm trying to explain is: As an 16 analyst, you always want more. You want more 17 data. You want more events to analyze but that's 18 not what you always get so you have to construct 19 a test, you know, design the test for the data 20 that you are given. You know, as I said, you may 21 not have ten events to analyze over a particular 22 period of time. There may not be ten significant 23 days when you think significant information 24 entered the market. 25 So I mean as a general proposition, as an</p>
<p style="text-align: right;">Page 135</p> <p>1 four-year period, how many of those ten event 2 days would need to show statistically significant 3 abnormal price movement to support a conclusion 4 that the market for the security is efficient? 5 MR. GRONBORG: Object to form. 6 A. There's no threshold so when you are selecting 7 your events of interest you're making a 8 hypothesis that news entered the market that may 9 have impacted the price of the security. That 10 doesn't mean that you've accurately identified 11 only those dates upon which material news entered 12 the market; so in the context of your 13 hypothetical, I don't think that there's any 14 number that's the correct number out of ten. 15 Q. If you want to evaluate market efficiency for a 16 security over a period of one year, how many 17 event days during that period would you need to 18 test to reach a conclusion? 19 MR. GRONBORG: Object to form. 20 A. That's also difficult to answer because you may 21 have a security that doesn't have very many 22 relevant announcements over a one-year period so 23 you may have a very, very small sample of days to 24 test that are what you would consider to be news 25 days or days where relevant information entered</p>	<p style="text-align: right;">Page 137</p> <p>1 analyst I like to have more rather than less but 2 you design your test around the facts and 3 circumstances that you're, that are in front of 4 you. 5 Q. If you want to -- strike that. 6 Can you reach a conclusion about market 7 efficiency over a multiyear period without 8 studying any event days during that period? 9 A. Sure. 10 Q. How? 11 A. I think we talked about this before in looking at 12 the characteristics of the market so do you have 13 an active market over multi periods. Do you 14 have, are analysts issuing reports about the 15 company consistently over a multi, over multi 16 periods. 17 There are other indicators. You know, in 18 many cases that I've looked at you may have one 19 significant event and it's the end of the class 20 period disclosure and that's all that you have 21 during the class period. That doesn't mean that 22 at earlier points in time the market's not 23 efficient. It just means there's nothing 24 significant going on that's going to change the 25 price by a significant amount.</p>

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<p style="text-align: right;">Page 138</p> <p>1 Q. So you would have to look at the other Cammer and</p> <p>2 Krogman factors of the event study to reach a</p> <p>3 conclusion in that circumstance. Is that what</p> <p>4 you're saying?</p> <p>5 A. Sure. That's what we've been talking about which</p> <p>6 is no one Cammer or Krogman factor is dispositive</p> <p>7 with regard to market efficiency. You've got to</p> <p>8 look at the whole kit and caboodle.</p> <p>9 Q. When conducting an event study what's the</p> <p>10 appropriate methodology to choose the events to</p> <p>11 be evaluated?</p> <p>12 A. There is no one appropriate methodology. There</p> <p>13 are event studies that are done on a number of</p> <p>14 different types of corporate events. There are</p> <p>15 event studies done on earnings announcement days.</p> <p>16 There are event studies that are done on dividend</p> <p>17 announcement days. There are event studies that</p> <p>18 are done on changes in credit ratings. There are</p> <p>19 event studies that are done when mergers are</p> <p>20 announced so there is no -- there are some event</p> <p>21 studies done on any day the company issues a</p> <p>22 press release. So there's no any one particular</p> <p>23 appropriate way of identifying events and it's</p> <p>24 very specific to the subject companies that</p> <p>25 you're looking at.</p>	<p style="text-align: right;">Page 140</p> <p>1 is not, should not be there.</p> <p>2 Q. So we would need to take that word out to make</p> <p>3 Paragraph 96 accurate; is that right?</p> <p>4 A. Yes. Thank you.</p> <p>5 Q. I'll X it out right now.</p> <p>6 Does your report explain the specifications</p> <p>7 and the steps you followed to conduct the event</p> <p>8 study?</p> <p>9 A. I believe so.</p> <p>10 Q. Turn to Page 34, Paragraph 84 of your report,</p> <p>11 please.</p> <p>12 A. I'm there.</p> <p>13 Q. So starting here, you lay out the steps that you</p> <p>14 took in your event study and that explanation</p> <p>15 goes through Page 41 Paragraph 98; is that right?</p> <p>16 A. Let me look at all the pages.</p> <p>17 Q. Does this section of your report accurately</p> <p>18 summarize the steps you took in carrying out your</p> <p>19 event study?</p> <p>20 A. I believe so.</p> <p>21 Q. Did you take any other steps that you did not</p> <p>22 describe in this section of your report?</p> <p>23 A. I don't think so.</p> <p>24 Q. Your methodology is fully described in your</p> <p>25 report?</p>
<p style="text-align: right;">Page 139</p> <p>1 Q. Does the scholarly literature identify</p> <p>2 methodologies that are appropriate for selecting</p> <p>3 events for an event study?</p> <p>4 A. Generally the scholarly articles don't speak to</p> <p>5 an event study on a single company security.</p> <p>6 They speak to an analysis of the types of</p> <p>7 information that impact stock prices over 3,000</p> <p>8 different companies' equity securities so there</p> <p>9 is no scholarly literature on doing single study</p> <p>10 -- single company event studies and selecting</p> <p>11 events.</p> <p>12 Q. Do you agree that it would be improper to pick</p> <p>13 events to test by looking at whether the</p> <p>14 securities price actually changed on that day?</p> <p>15 A. You mean ahead of time?</p> <p>16 Q. Yes.</p> <p>17 A. It would not be something that I would do.</p> <p>18 Q. It would bias the event study, wouldn't it?</p> <p>19 A. It's not a methodology that I would ascribe to.</p> <p>20 Q. You conducted an event study here, right?</p> <p>21 A. Yes. And while we're talking about event studies</p> <p>22 and my event study, I noticed I believe there's</p> <p>23 a, in Paragraph 96 of my report it has the word</p> <p>24 "rolling" regression and I did not conduct a</p> <p>25 rolling regression analysis so the word rolling</p>	<p style="text-align: right;">Page 141</p> <p>1 A. I believe so.</p> <p>2 Q. The results of your event study are presented in</p> <p>3 your Exhibit 13 --</p> <p>4 A. Yes.</p> <p>5 Q. -- of your report, that's Page 100 of 108; is</p> <p>6 that correct?</p> <p>7 A. I'm looking.</p> <p>8 Yes.</p> <p>9 Q. Your event study analyzed each of the eight</p> <p>10 FirstEnergy notes individually; is that right?</p> <p>11 A. Yes.</p> <p>12 Q. You did not expect the notes to respond</p> <p>13 uniformly; is that right?</p> <p>14 A. Yes.</p> <p>15 Q. And that's because bonds from the same company</p> <p>16 can react to information differently; is that</p> <p>17 right?</p> <p>18 A. Yes.</p> <p>19 Q. Different bonds from the same company can have</p> <p>20 different price sensitivities, correct?</p> <p>21 A. Yes.</p> <p>22 Q. It's possible that the market for one bond for a</p> <p>23 company could be efficient while the market for</p> <p>24 another bond from a company is inefficient; is</p> <p>25 that right?</p>

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<p style="text-align: right;">Page 142</p> <p>1 A. Generally speaking I think that's a possibility 2 and as I've mentioned, with a company as large as 3 FirstEnergy, I would not think that that's very 4 likely. 5 Q. In your event study, you sought to remove from 6 the daily price movements of each note the impact 7 of events that would have affected the economy or 8 the market as a whole; is that right? 9 A. Yes. 10 Q. How did you do that? 11 A. I used as the independent variable the price 12 returns to the Bloomberg U.S. Corporate Bond 13 Index. 14 Q. Did you seek to remove from the daily price 15 movements the affect of events that would have 16 affected the utility industry? 17 A. Do I seek to remove events that would have? To 18 the extent that the independent variable is a 19 broad-based index, I would expect that it would 20 eliminate market movements across broad industry 21 groups that were not company specific. 22 Q. Did you use an index of utility bonds to try to 23 control for events affecting the utility industry 24 as a whole? 25 A. I did not.</p>	<p style="text-align: right;">Page 144</p> <p>1 credit-relevant events; is that correct? 2 A. Yes. 3 Q. What is a credit-relevant event? 4 A. A credit-relevant event is a company-specific 5 event that would change investors' perception of 6 the riskiness of investing in FirstEnergy's debt 7 securities. 8 Q. Where does your definition of a credit-relevant 9 event that you used here come from? 10 A. I think I described what a credit-relevant event 11 is in several places in my report. 12 Q. Did you draw that definition from the 13 peer-reviewed literature? 14 A. No. 15 Q. Does the peer-reviewed literature discuss using 16 credit-relevant events for an event study? 17 A. The peer-reviewed literature in looking at the 18 impact of, for example, credit rating downgrades 19 on thousands of, you know, across thousands of 20 different debt securities certainly uses that 21 terminology. 22 Q. Is there a specific article or treatise that you 23 can point to that endorses the use of 24 credit-relevant events for an event study? 25 A. I believe there's a Fama and French academic</p>
<p style="text-align: right;">Page 143</p> <p>1 Q. Have you used industry specific indexes in other 2 event studies to control for industrywide events? 3 A. I have. 4 Q. When? 5 A. I've used them when there may be changes in the 6 industry group that could potentially have 7 impacted the company's, subject company's 8 security price but in this context I am looking 9 at credit-relevant events specific to 10 FirstEnergy. I did not think it was necessary 11 here to do that. 12 Q. Why didn't you think it was necessary or 13 desirable to use an industry specific index as a 14 control here? 15 A. Generally there were no trends in the utility 16 industry that I saw throughout the class period 17 that would have had a bearing on the credit 18 rating of FirstEnergy or the credit profile of 19 FirstEnergy during this period that I tested. 20 Q. How did you determine that? 21 A. Reviewing analyst reports that covered not only 22 FirstEnergy but covered the universe of utility 23 stocks. 24 Q. Your standard for selecting events for the event 25 study was to select what you called</p>	<p style="text-align: right;">Page 145</p> <p>1 paper where they're looking at different factors 2 that affect the price of debt securities and 3 default risk is one of those factors. 4 Q. Let's look at Exhibit 2 of your report here, Page 5 53 of 108 and let's flip over to Page 54 of 108. 6 Is the paper that you just referred to listed 7 on Page 53 or 54 or 55? 8 A. No. 9 Q. How precisely or how exactly did you determine 10 which events were credit-relevant for purposes of 11 your event study? 12 A. Well, beginning with the events that were 13 outlined in the complaint towards the end of the 14 class period, around that time period I reviewed 15 news articles and analyst reports to see when 16 there was commentary regarding a change in the 17 credit profile of FirstEnergy and I set those 18 forth in, beginning on Page 37 of my report 19 starting with the July 21st announcement which is 20 followed by or contemporaneously a UVS report 21 says, you know, as a result of those events we 22 believe there is a real possibility that, you 23 know, FirstEnergy could be downgraded so that was 24 the process was really through reading the news 25 articles and the analyst reports to see when the</p>

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<p style="text-align: right;">Page 146</p> <p>1 major credit-relevant events occurred and then to</p> <p>2 test those dates.</p> <p>3 Q. Did you look at anything other than news articles</p> <p>4 and analyst reports to determine whether a given</p> <p>5 event was credit-relevant or not?</p> <p>6 A. I looked at a, almost a chronology if you will of</p> <p>7 the credit rating history of, that was provided</p> <p>8 by S&P, Moody's and Fitch; but other than the</p> <p>9 credit rating history, the news articles and the</p> <p>10 analyst reports, there's nothing that comes to</p> <p>11 mind in terms of how I identified those events.</p> <p>12 Q. Were there dates that you considered as possible</p> <p>13 events for your event study that you concluded</p> <p>14 that the events were not credit relevant?</p> <p>15 A. I believe I considered two subsequent dates in</p> <p>16 November when the other, when Fitch and Moody's</p> <p>17 downgraded FirstEnergy's credit below investment</p> <p>18 grade but I did not test those because S&P was</p> <p>19 sort of the frontrunner in terms of the credit</p> <p>20 ratings for FirstEnergy in that they were the</p> <p>21 first ones to put the company on credit watch and</p> <p>22 then the other two followed later so that's not</p> <p>23 really new information and then first -- S&P</p> <p>24 rather was the first to downgrade FirstEnergy's</p> <p>25 bonds to junk status from investment grade and so</p>	<p style="text-align: right;">Page 148</p> <p>1 in the price of the security upon the upgrade.</p> <p>2 The other reason why it may or may not be is</p> <p>3 because oftentimes an upgrade or a downgrade are</p> <p>4 expected; so for example in, I think it was in</p> <p>5 the middle of October at some point S&P said</p> <p>6 well, if there's any additional information that</p> <p>7 comes out linking, you know, the executives to</p> <p>8 the bribery scheme, it's likely that we're going</p> <p>9 to downgrade to junk and so lo and behold after</p> <p>10 the market closed on, you know, on the 29th of</p> <p>11 October, additional information comes out October</p> <p>12 30th, the price of some of the notes falls and</p> <p>13 S&P downgrades.</p> <p>14 So sometimes it's the tail wagging the dog</p> <p>15 and you really have to determine is it</p> <p>16 unexpected, is it expected? So you can't as a</p> <p>17 general premise say every upgrade that the bonds</p> <p>18 are going to go up and every downgrade they're</p> <p>19 going to go down.</p> <p>20 Q. What is your methodology for determining whether</p> <p>21 a credit upgrade or downgrade is a</p> <p>22 credit-relevant event?</p> <p>23 A. Investors' perception of whether or not the bonds</p> <p>24 are going to be in this case downgraded and what</p> <p>25 was particularly of note here is that they were</p>
<p style="text-align: right;">Page 147</p> <p>1 the follow-on if you will a month later by Fitch</p> <p>2 and Moody's I didn't think would be new</p> <p>3 information to the market.</p> <p>4 Q. Were there any other events that you considered</p> <p>5 including in your event study but you decided</p> <p>6 that the events weren't credit relevant?</p> <p>7 A. Not that I can recall.</p> <p>8 Q. Did you document that process for evaluating</p> <p>9 potential event days and making a decision</p> <p>10 whether or not they were credit relevant in your</p> <p>11 report?</p> <p>12 A. No.</p> <p>13 Q. Is a credit upgrade or a credit downgrade a</p> <p>14 credit-relevant event?</p> <p>15 MR. GRONBORG: Object to form.</p> <p>16 A. It can be but not necessarily.</p> <p>17 Q. Okay. Well --</p> <p>18 A. In other words, it could --</p> <p>19 Q. No, go ahead.</p> <p>20 A. An upgrade doesn't change for a particular debt</p> <p>21 security the payback if you will so if I'm</p> <p>22 holding a particular debt security and it's</p> <p>23 currently rated double A and it gets upgraded to</p> <p>24 single A, it doesn't make much of a difference to</p> <p>25 me and I don't think that there would be a change</p>	<p style="text-align: right;">Page 149</p> <p>1 on the low end of investment grade and it is a</p> <p>2 big deal in the corporate bond market to go from</p> <p>3 investment grade to junk.</p> <p>4 Q. Are there any objective criteria that apply to</p> <p>5 your test of whether a credit upgrade or</p> <p>6 downgrade is a credit-relevant event?</p> <p>7 A. There may be.</p> <p>8 Q. What is --</p> <p>9 A. I don't know in the whole universe of objective</p> <p>10 criteria, there may be.</p> <p>11 Q. Did you apply any objective criteria in</p> <p>12 determining whether a credit upgrade or downgrade</p> <p>13 is a credit-relevant event?</p> <p>14 A. As I stated, my methodology was to review the</p> <p>15 contemporaneous news and analyst reports to get</p> <p>16 an understanding of what investors' perceptions</p> <p>17 were regarding the credit posture of FirstEnergy</p> <p>18 and from that review I was able to identify four</p> <p>19 dates upon which I thought there may be a price</p> <p>20 impact for the Senior Notes.</p> <p>21 Q. What was your source for your test for</p> <p>22 determining whether a credit upgrade or downgrade</p> <p>23 is a credit-relevant event?</p> <p>24 MR. GRONBORG: Object to form.</p> <p>25 A. I don't think I said I had a test of whether an</p>

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<p style="text-align: right;">Page 150</p> <p>1 upgrade or a downgrade was a relevant event.</p> <p>2 Q. Did -- however it is that you determined whether</p> <p>3 a credit upgrade or downgrade is a</p> <p>4 credit-relevant event, did you draw that from the</p> <p>5 peer-reviewed literature?</p> <p>6 A. Well, I didn't do that here so I didn't look at</p> <p>7 credit upgrades or downgrades here.</p> <p>8 Q. Is a rating --</p> <p>9 A. In isolation.</p> <p>10 Q. Is a rating agency outlook change a</p> <p>11 credit-relevant event?</p> <p>12 A. It certainly can be.</p> <p>13 Q. How do you tell whether it is or isn't?</p> <p>14 A. Again in this instance since the FirstEnergy</p> <p>15 Senior Notes were on the precipice between</p> <p>16 investment grade and junk and S&P puts them on</p> <p>17 credit watch negative, I think that's a</p> <p>18 credit-relevant event. Certainly the market was</p> <p>19 talking about it and investors were concerned</p> <p>20 about it.</p> <p>21 Q. And when would a rating agency outlook change not</p> <p>22 be a credit-relevant event if ever?</p> <p>23 A. Hypothetically if you had notes that were rated</p> <p>24 double B plus and there was a potential that they</p> <p>25 would go to double B minus it may not be a major</p>	<p style="text-align: right;">Page 152</p> <p>1 bankruptcy, I would think it would be a</p> <p>2 credit-relevant event.</p> <p>3 Q. Is there any objective standard that a person can</p> <p>4 apply to determine what qualifies as a</p> <p>5 credit-relevant event?</p> <p>6 A. I think if you're examining price impact across a</p> <p>7 thousand debt securities, you would necessarily</p> <p>8 objectively define what you're going to consider</p> <p>9 to be an event because you would not be able to</p> <p>10 identify events of interest that were common</p> <p>11 across an event study where you're looking at a</p> <p>12 thousand securities. So I think in those cases</p> <p>13 you would see generally earnings announcements if</p> <p>14 you're looking at a common stock or you might see</p> <p>15 dividend decreases as relevant events to study;</p> <p>16 but when you're doing a single security event</p> <p>17 study, you don't have the luxury if you will of</p> <p>18 objectively defining I'm going to look at every</p> <p>19 single earnings announcement over the class</p> <p>20 period whether or not the earnings were</p> <p>21 unexpected. So it just becomes more difficult</p> <p>22 with a single security event study.</p> <p>23 Q. So there isn't an objective standard that a</p> <p>24 person could apply to determine what qualifies as</p> <p>25 a credit-relevant event here?</p>
<p style="text-align: right;">Page 151</p> <p>1 event.</p> <p>2 Q. Does the peer-reviewed literature tell you how to</p> <p>3 determine whether a credit rating agency outlook</p> <p>4 change is or is not a credit-relevant event?</p> <p>5 A. I don't think there's any peer-reviewed</p> <p>6 literature on such an event.</p> <p>7 Q. Is the filing of a bankruptcy proceeding a</p> <p>8 credit-relevant event?</p> <p>9 A. I think we discussed this earlier and the, in and</p> <p>10 of itself, a bankruptcy filing is a huge event</p> <p>11 and especially if it's unexpected and if a rating</p> <p>12 agency changes the debt rating the same day as a</p> <p>13 bankruptcy is announced, I don't know that you</p> <p>14 could isolate and say well the bonds went down</p> <p>15 because of the credit rating change or the bonds</p> <p>16 went down because a bankruptcy was announced.</p> <p>17 Q. The filing of a bankruptcy proceeding could be a</p> <p>18 credit-relevant event; is that right?</p> <p>19 A. It could be.</p> <p>20 Q. How do you tell whether it is or it isn't?</p> <p>21 A. Again, is it unexpected new information.</p> <p>22 Q. Is the disclosure of the possibility of the</p> <p>23 filing of a bankruptcy a credit-relevant event?</p> <p>24 A. Generally if it's the very first time anyone has</p> <p>25 indicated that there's a possibility of a</p>	<p style="text-align: right;">Page 153</p> <p>1 A. You could determine that you're going to look at</p> <p>2 every single credit rating change or if it's, you</p> <p>3 know, if the issues are being put on credit watch</p> <p>4 negative or credit watch positive, you may be</p> <p>5 able to do that but if I'm trying to identify</p> <p>6 events where I think there may be price impact, I</p> <p>7 don't think that's a reasonable way of doing it.</p> <p>8 Q. So there is an objective standard that could be</p> <p>9 applied here to determine what's credit-relevant</p> <p>10 but you did not apply that standard; is that</p> <p>11 right?</p> <p>12 MR. GRONBORG: Object to form.</p> <p>13 A. That is not right. That's not right. It would</p> <p>14 not be a reliable method for identifying events</p> <p>15 that could potentially have changed the price of</p> <p>16 the securities.</p> <p>17 Q. Let's say somebody wanted to replicate what you</p> <p>18 did here. What objective standard should they</p> <p>19 use to select event days?</p> <p>20 A. Well, I set forth the way that I identified the</p> <p>21 event days so presumably they could review the</p> <p>22 news articles and analyst reports to identify</p> <p>23 credit-relevant events that were unexpected that</p> <p>24 were significant enough that analysts were</p> <p>25 concerned about them, talking about them.</p>

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<p style="text-align: right;">Page 154</p> <p>1 Q. In previous cases where you conducted event 2 studies, you split days into news days and no 3 news days; is that right? 4 A. In some of the previous cases where I've done 5 event studies, I conducted an analysis which 6 compares two samples. Sample news or, you know, 7 days when relevant news entered the market 8 against days when no news entered the market; and 9 comparing those two samples statistically, it 10 either supports or doesn't support that the price 11 of the security was more likely to respond on 12 days when news entered the market than didn't 13 enter the market. 14 Q. Why didn't you take a similar approach here? 15 A. Because my sample of news days was relatively 16 small and my sample of no news days would have 17 been enormous and it would have completely made 18 nonsensical results. It would bias the results 19 in favor of a finding of efficiency because you 20 would have such a different sample size that it 21 essentially wouldn't be fair to compare the news 22 days to the non news days. 23 Q. Have you ever submitted a -- 24 A. It's a test, it's a test I like to conduct when 25 there's a robust sample of news days and non news</p>	<p style="text-align: right;">Page 156</p> <p>1 Q. So the only date from the class period that you 2 included in your event study was July 21st, 2020; 3 is that correct? 4 A. Yes, that is the announcement that essentially 5 ends the class period in terms of when you could 6 have purchased securities and potentially been 7 damaged. 8 Q. Why did you include July 22nd as an event date? 9 A. July 22nd additional information came out 10 regarding the identity of Company A and the 11 analyst from CreditSights, which is a credit 12 market research firm, said to his constituents 13 that the, this implicates the company to a much 14 further degree than was originally thought so it 15 was additional information regarding the 16 culpability or potential culpability of 17 FirstEnergy in the bribery scheme and I, there 18 was a credit analyst commenting on the importance 19 of that new information. 20 Q. Why didn't you include July 23rd as an event 21 date? 22 A. S&P put the company's credit rating on credit 23 watch negative that day. 24 Q. I'd like to put in front of you a document that's 25 been marked for identification purposes as FE 3.</p>
<p style="text-align: right;">Page 155</p> <p>1 days. 2 Q. Have you ever submitted an expert report where 3 you selected event study dates based on whether 4 the events were credit-relevant? 5 A. I believe, I believe I only have testified in one 6 other debt securities case and in that case there 7 were an ample number of potentially corrective 8 disclosures that I was able to come up with a 9 large enough sample of news days, so the answer 10 is: I've only been an expert in one other debt 11 securities case where I've conducted an event 12 study. Circumstances were different there and I 13 conducted a news/no news analysis. 14 Q. So you've never submitted an expert report where 15 you selected event study dates based on events 16 that were credit relevant; is that right? 17 A. That's fair. 18 Q. You selected four dates for your event study; is 19 that right? July 21st, July 22nd, July 23rd and 20 October 30th, 2020; is that right? 21 A. That's correct. 22 Q. Do you recall that the class period here runs 23 from February 21st, 2017 to July 21st, 2020; is 24 that right? 25 A. Yes.</p>	<p style="text-align: right;">Page 157</p> <p>1 This is a copy of the complaint that the 2 plaintiffs filed in this case. If you would 3 refresh your exhibit folder, you will be able to 4 see it there. 5 - - - - 6 (Thereupon, Exhibit FE 3, Complaint, was 7 marked for purposes of identification.) 8 - - - - 9 A. There's a lot of screen shrinkage going on here. 10 Okay. 11 Q. If you would pull up Exhibit FE 3, this is the 12 complaint and I'd like to direct your attention 13 to Paragraph 150 of the complaint which is on 14 Page 56. 15 A. Okay. 16 Q. So Paragraph 150 alleges that on July 24, 2020 17 Moody's announced it was downgrading its outlook 18 for FirstEnergy. 19 Why did you not include July 24th as an event 20 date? 21 A. Because S&P had already put the company on credit 22 watch so Moody's was a follower if you will. 23 Q. Any other reason that you included July 20 and 24 not July 24th? 25 A. No.</p>

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<p style="text-align: right;">Page 158</p> <p>1 Q. If you'd turn back to your report, Page 37</p> <p>2 Paragraph 89a?</p> <p>3 A. Okay.</p> <p>4 Q. You summarize the four events that you -- I'm</p> <p>5 looking at Paragraphs 89a through d.</p> <p>6 You summarize the four events that you</p> <p>7 selected for your, for your event study. Do</p> <p>8 these paragraphs explain why you chose these</p> <p>9 events for your event study?</p> <p>10 A. I think so. It sets forth a reference for the</p> <p>11 contemporaneous commentary regarding whether or</p> <p>12 not an event was important in terms of the credit</p> <p>13 ratings or the credit profile of the company.</p> <p>14 Q. Are there any other reasons --</p> <p>15 A. And that was part of what I looked at which was:</p> <p>16 What are the analysts saying? What's the, what</p> <p>17 is the news? What are the analysts saying?</p> <p>18 Q. Are there any other reasons you chose these four</p> <p>19 event dates that are not set forth in Paragraph</p> <p>20 89 of your report?</p> <p>21 MR. GRONBORG: Object to form.</p> <p>22 A. There may be but if there was additional</p> <p>23 commentary it was confirmatory of what is set</p> <p>24 forth here, so...</p> <p>25 Q. Besides the four days listed in Exhibit 13 to</p>	<p style="text-align: right;">Page 160</p> <p>1 A. No, because they would not have been common to</p> <p>2 all eight debt securities that I was examining.</p> <p>3 Q. Why wouldn't they have been common to all eight</p> <p>4 debt securities?</p> <p>5 A. Because they weren't all outstanding during these</p> <p>6 time periods.</p> <p>7 Q. Why wouldn't you include those dates in your</p> <p>8 event study to help you analyze the securities</p> <p>9 that were outstanding at the time of those</p> <p>10 events?</p> <p>11 A. As I said, I was aware of the events of interest</p> <p>12 for the common stock that was, that were</p> <p>13 referenced in the complaint and I knew that for</p> <p>14 example there were two issues of debt that were</p> <p>15 very recently issued in June of 2020 and I wanted</p> <p>16 to put all of the securities on equal footing, if</p> <p>17 you will, in analyzing the impact of the news on</p> <p>18 the prices of the securities so I didn't look</p> <p>19 outside of a period prior to when they were all</p> <p>20 issued and outstanding.</p> <p>21 Q. Is that the only reason that you excluded other</p> <p>22 credit-relevant events during the class period</p> <p>23 from your event study?</p> <p>24 A. Yes. That was outside of the range of news and</p> <p>25 analyst reports essentially that I used for my</p>
<p style="text-align: right;">Page 159</p> <p>1 your report, did any other events on any other</p> <p>2 day during the class period qualify as a</p> <p>3 credit-relevant event?</p> <p>4 A. When you say during the class period, between the</p> <p>5 defined class period there may have been.</p> <p>6 Q. Yeah, when I refer to the class period I'm</p> <p>7 referring to the period from February 21st, 2017</p> <p>8 to July 20th, 2020 so let me restate the</p> <p>9 question:</p> <p>10 Besides the four days listed in Exhibit 13</p> <p>11 were there any other events on any other day</p> <p>12 during the class period that qualified as a</p> <p>13 credit-relevant event?</p> <p>14 A. There may have been.</p> <p>15 Q. Which events during the class period were</p> <p>16 credit-relevant events?</p> <p>17 A. There were days when additional bonds were</p> <p>18 issued. They may have been credit-relevant.</p> <p>19 There was a day in August of 2018 I believe</p> <p>20 when S&P may have upgraded the debt from triple B</p> <p>21 minus to triple B. I wouldn't necessarily expect</p> <p>22 any price change but it might be a</p> <p>23 credit-relevant event so there may have been.</p> <p>24 Q. Did you include any of those other</p> <p>25 credit-relevant events in your event study?</p>	<p style="text-align: right;">Page 161</p> <p>1 analysis here.</p> <p>2 Q. And did you make that determination yourself or</p> <p>3 did someone else ask you to exclude those dates</p> <p>4 from your event study?</p> <p>5 A. I made that determination.</p> <p>6 Q. Did you conduct any analysis of any of those</p> <p>7 other credit-relevant dates that are, that is not</p> <p>8 included in your report or its exhibits?</p> <p>9 A. I did not.</p> <p>10 Q. So you don't know whether any of the FirstEnergy</p> <p>11 notes exhibited statistically significant</p> <p>12 residual returns on any of the credit-relevant</p> <p>13 dates during a class period prior to July 21st,</p> <p>14 2020?</p> <p>15 A. I do not.</p> <p>16 Q. And you didn't try to figure that out; is that</p> <p>17 right?</p> <p>18 A. No, it wasn't part of my analysis.</p> <p>19 Q. Did FirstEnergy's credit ratings change during</p> <p>20 the class period?</p> <p>21 A. I think I just had mentioned that I believe that</p> <p>22 S&P upgraded from triple B minus to triple B</p> <p>23 their credit rating in August of 2018 I believe.</p> <p>24 Q. Let's look at Paragraph 31 of your report.</p> <p>25 That's Page 11 and you see at the bottom of Page</p>

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<p style="text-align: right;">Page 162</p> <p>1 11 carrying over to Page 12 your report states</p> <p>2 between August 2018 and November 2019, S&P</p> <p>3 upgraded the credit rating for FirstEnergy from</p> <p>4 triple B minus to triple B.</p> <p>5 Would you expect a bonds price to increase</p> <p>6 following an upgrade in its credit rating?</p> <p>7 A. No.</p> <p>8 Q. Never?</p> <p>9 A. You said in this instance. Given this example,</p> <p>10 no, I wouldn't. From triple B minus to triple B,</p> <p>11 probably not. I would think it's unlikely.</p> <p>12 Q. When did S&P upgrade its credit rating for</p> <p>13 FirstEnergy?</p> <p>14 A. It says in August of 2018.</p> <p>15 Q. Okay. I just see where it says between August</p> <p>16 2018 and 2019. So August 2018 was when S&P did</p> <p>17 it?</p> <p>18 A. Yes.</p> <p>19 Q. And November 2019 was when Fitch did it?</p> <p>20 A. Yes.</p> <p>21 Q. And you didn't include either of those events in</p> <p>22 your event study, right?</p> <p>23 A. I did not.</p> <p>24 Q. Did you document the basis for that determination</p> <p>25 in your report anywhere?</p>	<p style="text-align: right;">Page 164</p> <p>1 earnings announcement which would have occurred</p> <p>2 shortly after the beginning of the class period.</p> <p>3 How did you determine whether that earnings</p> <p>4 announcement was a credit-relevant event?</p> <p>5 MR. GRONBORG: Object to form.</p> <p>6 A. I think we've been over my, how I selected the</p> <p>7 events of interest, none of which includes</p> <p>8 looking at earnings announcements from 2017 so</p> <p>9 that was not part of the criteria for my event</p> <p>10 study here.</p> <p>11 Q. Did you go back and review the analyst reports or</p> <p>12 the news articles that were published following</p> <p>13 that earnings announcement to determine whether</p> <p>14 it was a credit-relevant event?</p> <p>15 A. It was outside of the observation period and the</p> <p>16 event windows that I selected for my event study.</p> <p>17 There was a single FirstEnergy note of the eight</p> <p>18 that was issued and outstanding at that point in</p> <p>19 time. My objective was to find events that could</p> <p>20 have potentially impacted the prices of all eight</p> <p>21 of the Senior Notes that were the subject of my</p> <p>22 study so I did not consider the earnings</p> <p>23 announcement in February of 2017 to be a relevant</p> <p>24 event in terms of my event study.</p> <p>25 Q. And you didn't go back and look at the news</p>
<p style="text-align: right;">Page 163</p> <p>1 A. No.</p> <p>2 Q. Did FirstEnergy issue any earnings reports during</p> <p>3 the class period?</p> <p>4 A. Yes.</p> <p>5 Q. Did you include any of those as events in your</p> <p>6 event study?</p> <p>7 A. No.</p> <p>8 Q. Why not?</p> <p>9 A. Generally speaking bonds, a bond's prices do not</p> <p>10 react to earnings in and of themselves unless it</p> <p>11 is, indicates or signals a material change in the</p> <p>12 financial condition of the company overall.</p> <p>13 Q. Did you document your analysis of whether to</p> <p>14 include each earnings report date as an event in</p> <p>15 your report anywhere?</p> <p>16 A. I documented what my criteria were, what steps I</p> <p>17 took and what was the basis for the events I</p> <p>18 chose. I did not document why I didn't choose a</p> <p>19 myriad of other events so I did not document why</p> <p>20 I didn't select earnings announcement dates;</p> <p>21 although if you look in my report, you will see</p> <p>22 there's references to the fact that bond prices</p> <p>23 in general are not going to be affected like</p> <p>24 stock prices are by earnings and announcements.</p> <p>25 Q. Let's take as an example the first quarter 2017</p>	<p style="text-align: right;">Page 165</p> <p>1 coverage or analyst commentary around the time of</p> <p>2 that earnings announcement, correct?</p> <p>3 A. Correct.</p> <p>4 Q. And the same thing is true for all of the</p> <p>5 earnings announcements in 2017, 2018, 2019 and</p> <p>6 the first quarter of 2020; is that right?</p> <p>7 A. That's correct, yes.</p> <p>8 Q. During the proposed class period here there were</p> <p>9 numerous disclosures about the possible</p> <p>10 bankruptcy of FirstEnergy's nuclear subsidiary</p> <p>11 and then eventually it did file for bankruptcy.</p> <p>12 A. Yes.</p> <p>13 Q. The possible bankruptcy was a credit-relevant</p> <p>14 event, wasn't it?</p> <p>15 MR. GRONBORG: Object to form.</p> <p>16 A. It could have been but for the fact that</p> <p>17 FirstEnergy essentially assured investors that it</p> <p>18 would be immunized from such a bankruptcy filing.</p> <p>19 Q. Is that why you excluded the dates of the</p> <p>20 disclosures about the bankruptcy from your event</p> <p>21 study?</p> <p>22 A. Those disclosures were early, earlier in the</p> <p>23 class period than the time period that I focused</p> <p>24 on due to the fact that not all, not all eight of</p> <p>25 the securities were issued and outstanding at</p>

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<p style="text-align: right;">Page 166</p> <p>1 that point in time.</p> <p>2 Q. So the fact that the eight securities were not</p> <p>3 issued and outstanding, that's the reason that</p> <p>4 you excluded the disclosures about the bankruptcy</p> <p>5 from your event study; is that correct?</p> <p>6 A. It was not, it was not part of the selection</p> <p>7 criteria for my event study.</p> <p>8 Q. Meaning that those disclosures --</p> <p>9 A. It fell outside, it fell outside of the date</p> <p>10 range for my event study.</p> <p>11 Q. Okay. And that date range was the range of dates</p> <p>12 when all eight series of notes were outstanding;</p> <p>13 is that right?</p> <p>14 A. That's right.</p> <p>15 Q. And that's the only reason you excluded those</p> <p>16 disclosure dates from your event study; is that</p> <p>17 correct?</p> <p>18 A. I constructed the event study to include all</p> <p>19 eight of the Senior Notes so that I could analyze</p> <p>20 across all of the issues, their potential price</p> <p>21 impact upon credit-relevant events; so to the</p> <p>22 extent that something may have been credit</p> <p>23 relevant and had occurred before half of them</p> <p>24 were issued and outstanding, it would not have</p> <p>25 fallen under the umbrella of my construct.</p>	<p style="text-align: right;">Page 168</p> <p>1 make a separate determination as to whether this</p> <p>2 was a credit-relevant event for FirstEnergy.</p> <p>3 Q. Would you flip ahead a couple pages to Paragraph</p> <p>4 54 of the complaint. Paragraph 54 recites that</p> <p>5 on March 12th, 2019 the justice department</p> <p>6 objected to the plan of reorganization.</p> <p>7 Did you exclude this from the event study for</p> <p>8 the same reason that you excluded Paragraph 45</p> <p>9 from your event study?</p> <p>10 A. It wasn't excluded because it was never</p> <p>11 considered as a potential credit-relevant event</p> <p>12 during the observation period of my event study.</p> <p>13 Q. And if you flip forward to Paragraph 62,</p> <p>14 Paragraph 62 alleges that on April 4th, 2019 the</p> <p>15 bankruptcy court rejected the reorganization</p> <p>16 plan.</p> <p>17 Was this excluded from your event study for</p> <p>18 the same reasons as March 12th, 2019 and March</p> <p>19 31st 2018?</p> <p>20 A. No. It was never considered because it fell</p> <p>21 outside of the boundaries of the period that I</p> <p>22 considered.</p> <p>23 Q. Let's go back to your report and look at Exhibit</p> <p>24 9 which is Page 89 of 108. This was your list of</p> <p>25 analyst reports and if you go down to the entry</p>
<p style="text-align: right;">Page 167</p> <p>1 Q. I think I understand.</p> <p>2 So you didn't go back and look at each and</p> <p>3 every disclosure about the possible bankruptcy or</p> <p>4 the actual bankruptcy and make a separate</p> <p>5 determination for each disclosure that you were</p> <p>6 not going to include it in your event study; is</p> <p>7 that right?</p> <p>8 A. Correct.</p> <p>9 Q. Let's look at the complaint that's Exhibit FE 3.</p> <p>10 I want to direct your attention to Paragraph 45</p> <p>11 which is on Page 13. You see the last sentence</p> <p>12 of Paragraph 45 states that on March 31st, 2018</p> <p>13 FES, FENOC and their related entities,</p> <p>14 collectively referred to as FES, filed for relief</p> <p>15 under Chapter 11 of the United States Bankruptcy</p> <p>16 Code in the United States Bankruptcy Court for</p> <p>17 the Northern District of Ohio.</p> <p>18 Is it correct that you did not make a</p> <p>19 specific determination as to whether this was a</p> <p>20 credit-relevant event? Rather you excluded it</p> <p>21 because it didn't occur in 2020; is that right?</p> <p>22 A. It was outside of the time period when all eight</p> <p>23 of the Senior Notes were issued and outstanding</p> <p>24 and therefore outside of the time period that I</p> <p>25 was examining for my event study so I did not</p>	<p style="text-align: right;">Page 169</p> <p>1 for June 19th, 2017, there's a report from</p> <p>2 Barclays entitled "FirstEnergy Corp.: Time to</p> <p>3 Buy..."</p> <p>4 Did you read this report?</p> <p>5 A. I don't remember reading it, no.</p> <p>6 Q. Would a report recommending purchases of</p> <p>7 FirstEnergy securities qualify as a relevant,</p> <p>8 credit-relevant event?</p> <p>9 A. Not necessarily, no.</p> <p>10 Q. Could it?</p> <p>11 A. I, if it, if it specifically mentioned that the</p> <p>12 credit profile of the company was better or in</p> <p>13 their opinion better than the market thought, it</p> <p>14 may be relevant but generally speaking I wouldn't</p> <p>15 think that that would be a credit-relevant event.</p> <p>16 I have not read their report but I wouldn't think</p> <p>17 so.</p> <p>18 Q. You'd have to study the report to know for sure,</p> <p>19 right?</p> <p>20 A. It wouldn't have fallen in the purview of my</p> <p>21 event study nevertheless.</p> <p>22 Q. So you did not consider this date as a possible</p> <p>23 credit-relevant event because it didn't fall</p> <p>24 within the time frame that you were evaluating;</p> <p>25 is that right?</p>

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<p style="text-align: right;">Page 170</p> <p>1 A. I didn't read the report and it didn't fall 2 within the purview of my event study analysis 3 so...</p> <p>4 Q. If you'd turn the page and look at the entry for 5 December 28th, 2017 from Morningstar titled 6 "FirstEnergy is One of Our Top Utility Picks." 7 That was not part of your event study for the 8 reasons you just described?</p> <p>9 A. Yes.</p> <p>10 Q. Did you read this report?</p> <p>11 A. No.</p> <p>12 Q. So in your report, and as you've stated in your 13 testimony, you selected events from July 2020 to 14 October 2020 because that was an adequate control 15 period for all of the notes. 16 Did you need to have the same control period 17 for all of the notes?</p> <p>18 MR. GRONBORG: Object to form.</p> <p>19 A. I needed to have the -- by the way, it's not a 20 control period. It's your event window or your 21 observation period; but I felt it was necessary 22 to have a common group of events or potential 23 events to evaluate each of the eight securities 24 on essentially the same scale if you will, so is 25 it necessary? I felt that it was important for</p>	<p style="text-align: right;">Page 172</p> <p>1 the notes that had been outstanding for a longer 2 time?</p> <p>3 MR. GRONBORG: Object to form.</p> <p>4 A. No.</p> <p>5 Q. Let's look at Exhibit 1 of your report. This is 6 Page 52 of 108. Looking at the third note here, 7 which is AH0, and it was issued in June 2017, you 8 only analyzed the price movement of this note on 9 the four event days from July 21st to October 10 30th, 2020, correct?</p> <p>11 A. Correct.</p> <p>12 Q. Do you agree that the price movement of this note 13 in response to information in the second half of 14 2020 does not demonstrate to a reasonable degree 15 of scientific certainty that this note traded in 16 an efficient market way back in 2017?</p> <p>17 MR. GRONBORG: Object to form.</p> <p>18 A. I disagree.</p> <p>19 Q. Why do you disagree with that?</p> <p>20 A. Because the criteria for the demonstration of an 21 efficient market extends beyond a test for price 22 responsiveness and as we've been discussing 23 today, the characteristics of the market for this 24 particular security did not exhibit material 25 change from 2017 to 2020 and I looked at a number</p>
<p style="text-align: right;">Page 171</p> <p>1 my analysis to do it that way. Another analyst 2 might say, oh, well you don't have to do it that 3 way. You could have done it a different way and 4 you could have selected all different events for 5 different securities but then there wouldn't be 6 any common ground to evaluate price 7 responsiveness across the securities.</p> <p>8 Q. Would you look at Paragraph 90 of your report 9 please on Page 41 of 108. The second sentence of 10 Paragraph 90 reads: "The events of interest in 11 my Event Study occurred during the period 12 beginning July 2020 and ending October 2020 13 allowing me to include all of the Senior Notes in 14 the analysis with an adequate control period, as 15 discussed below." 16 Is that an accurate statement?</p> <p>17 A. Yes.</p> <p>18 Q. Is there a basis in the scholarly literature for 19 you using the same period to assess all eight of 20 the notes?</p> <p>21 A. Not specifically but certainly if you're making a 22 comparison, you would generally like to compare 23 on the same set of criteria so that's why I felt 24 it was important to do it this way.</p> <p>25 Q. Did you consider looking at longer periods for</p>	<p style="text-align: right;">Page 173</p> <p>1 of the factors including turnover for example 2 which is consistent and indicative of active 3 trading and actively traded market so I cannot 4 conclude nor would I conclude that price 5 responsiveness at any period of time during the 6 class period doesn't indicate efficiency during 7 an earlier period of time. I would have to find 8 evidence that there was a material change in the 9 structure of the market for this security and 10 then there may be an argument that one doesn't 11 necessarily demonstrate the other.</p> <p>12 Q. Did you analyze the price response of note AH0 to 13 any events in 2017?</p> <p>14 A. No.</p> <p>15 Q. To any events in 2018?</p> <p>16 A. No.</p> <p>17 Q. To any events in 2019?</p> <p>18 A. No.</p> <p>19 Q. To any events in 2020 prior to July 21st, 2020?</p> <p>20 A. No.</p> <p>21 Q. How far back in time can you draw an inference of 22 market efficiency for a bond based on the 23 analysis of a four-month period?</p> <p>24 A. I think that varies considerably depending on the 25 security.</p>

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<p style="text-align: right;">Page 174</p> <p>1 Q. What affects the length of time for which you can 2 infer market efficiency based on the analysis of 3 a four-month period? 4 A. So I would disagree with your characterization of 5 analysis that only extends for four months 6 essentially. 7 The other analyses that were performed extend 8 throughout the class period and for longer 9 periods of time and I saw no evidence that would 10 suggest that the market for these securities was 11 materially different or materially less active at 12 an earlier point in time. 13 Q. So the event study, and thank you for the 14 clarification there. 15 The event study that you conducted doesn't 16 tell you anything about the trading of the notes 17 in 2017, right? You have to look at other 18 analyses that you conducted; is that correct? 19 MR. GRONBORG: Object to form. 20 A. I would agree with that. 21 Q. And the same is true for 2018 and 2019 and for 22 the part of 2020 prior to July 21st, 2020, 23 correct? 24 A. Right. So it examines a certain period in time. 25 It examines certain events and you draw</p>	<p style="text-align: right;">Page 176</p> <p>1 21st, 2020, correct? 2 MR. GRONBORG: Object to form. 3 A. Correct. 4 Q. Let's turn back to the complaint which is 5 Exhibit -- 6 MR. GRONBORG: Geoff, we've been 7 going about an hour-and-a-half so if 8 there's a convenient break between topics 9 coming up pretty quick, I'd like to take a 10 break. 11 MR. RITTS: This is as good a time 12 as any. Why don't we take ten minutes. 13 THE VIDEOGRAPHER: We are off the 14 record at 3:21 p m. 15 - - - 16 (Thereupon, a recess was had.) 17 - - - 18 THE VIDEOGRAPHER: We are back on 19 the record at 3:31 p.m. 20 Q. Okay. Ms. Jones, do you have any devices or 21 documents with you now that you didn't have when 22 you were testifying before? 23 A. I don't. 24 Q. Let's turn our attention now to Exhibit FE 3 25 which is the complaint?</p>
<p style="text-align: right;">Page 175</p> <p>1 conclusions based on the statistical analysis of 2 price impact on those event dates. So in that 3 regard let's assume hypothetically that you have 4 a class period that extends for a one-year period 5 and there's a single event of interest which is 6 the corrective disclosure, alleged corrective 7 disclosure at the end of the class period. 8 Assuming there are no other material events 9 during that time period but the price responds to 10 the corrective disclosure, unless there's some 11 material difference in the trading of that 12 security throughout the class period, I don't 13 think you can assert that you haven't shown 14 market efficiency, you've only shown market 15 efficiency after the end of the class period. 16 Q. Focusing on the event study that you conducted as 17 to note AH0 which is column 3 on Exhibit 1, what 18 does your event study tell you about the trading 19 market for note AH0 in 2017? Does it tell you 20 anything at all? 21 A. No. 22 Q. And the same is true of all eight of the notes, 23 the event study that you conducted doesn't tell 24 you anything at all about the trading market for 25 any of those notes in the period prior to July</p>	<p style="text-align: right;">Page 177</p> <p>1 A. Okay. 2 Q. And I would like us all to look at Paragraph 160 3 which is on Page 59. 4 Paragraph 160 recites that on July 28th, 2020 5 Fitch Ratings announced that it was revising its 6 outlook for FirstEnergy to negative and then it 7 quotes two paragraphs from the announcement 8 there. 9 You did not include July 28, 2020 as an event 10 date in your event study; is that right? 11 A. That's right. 12 Q. And on what basis did you exclude that date? 13 A. I had already included July 23rd when S&P put the 14 ratings on credit watch and so I didn't include a 15 subsequent credit watch from Moody's or Fitch. I 16 didn't think it provided new relevant 17 information. 18 Q. And how did you make that determination? 19 A. It was essentially repetitive or follow-on from 20 S&P's rating action earlier. 21 Q. Did you document your analysis anywhere? 22 A. No. 23 Q. Let's turn then to Page or rather to Paragraph 24 164 which is on the next page, Page 60 of the 25 complaint, Paragraph 164 recites that on</p>

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<p style="text-align: right;">Page 178</p> <p>1 September 23rd, 2020 the Ohio Attorney General 2 filed a lawsuit against FirstEnergy and others 3 and Paragraph 165 goes on to allege that 4 FirstEnergy stock price declined by 3-and-a-half 5 percent after the disclosure of that news. 6 Did you include September 23rd, 2020 as an 7 event date for your event study? 8 A. I did not. 9 Q. Why not? 10 A. I didn't see any commentary in news articles or 11 analyst reports that would suggest that that 12 particular event changed the credit profile of 13 FirstEnergy. 14 Q. You didn't document that analysis anywhere, 15 though, is that right? 16 A. Correct. 17 Q. Turn to Paragraph 175 in the complaint, please. 18 That's on Page 63. Paragraph 175 alleges that on 19 October 23rd, 2020 S&P downgraded FirstEnergy and 20 it goes on to quote a portion of the S&P report 21 issued on that date. 22 You did not include October 23rd, 2020 as an 23 event date for your event study, correct? 24 A. Correct. 25 Q. What was the basis for that determination?</p>	<p style="text-align: right;">Page 180</p> <p>1 event? 2 A. It was essentially a follow-on downgrade and S&P 3 had already downgraded the issuer credit rating 4 to junk on October 30th; so again this would not 5 have been new or unexpected that Fitch and 6 Moody's would follow essentially. 7 Q. The drawdown of 2 billion dollars on the credit 8 line though was a new event independent of the 9 Moody's downgrade, wasn't it? 10 A. That was a, that was a new event that spooked the 11 stock market for sure because stock investors 12 were concerned that they would, that FirstEnergy 13 would issue more stock and it could potentially 14 be dilutive. 15 Q. The incurrence of an additional 2 billion dollars 16 of debt and the drawdown of the company's credit 17 lines was also a credit-relevant event, wasn't 18 it? 19 MR. GRONBORG: Object to form. 20 A. It could have been a credit-relevant event but 21 S&P had already downgraded the stock to junk so I 22 didn't perceive that as something that was new 23 and relevant particularly in terms of the credit 24 rating and I didn't see any commentary where 25 analysts were concerned that this created a</p>
<p style="text-align: right;">Page 179</p> <p>1 A. I did not see an S&P downgrade on October 23rd, 2 2020. I don't believe one occurred. 3 Q. Okay. So you believe that the complaint 4 Paragraph 175 is incorrect? 5 A. I do. 6 Q. Did they just have the wrong date that, the S&P 7 downgrade occur on a different date? 8 A. I don't know who drafted the complaint. I can't 9 tell you what their thought process was but S&P 10 does downgrade on October 30th. 11 Q. Turn over to Paragraph 196 through 199 of the 12 complaint, please. That's on Pages 68 and 69 of 13 the complaint. 14 Those paragraphs allege that on November 15 24th, 2020 FirstEnergy announced a drawdown of 16 about 2 billion dollars from its credit 17 facilities, that Moody's downgraded FirstEnergy 18 securities on November 24th and that there was a 19 stock price drop of more than 8 percent related 20 to those disclosures. 21 Did you, you did not include November 24th, 22 2020 as an event date for your event study, 23 correct? 24 A. That's correct. 25 Q. What was the basis for not including it as an</p>	<p style="text-align: right;">Page 181</p> <p>1 problem in terms of a default risk for the 2 FirstEnergy securities. 3 Q. In Paragraph 198 the complaint cites an S&P 4 analyst by taking the view that the 2 billion 5 dollar credit downgrade or credit drawdown is an 6 acknowledgment that the company may not have 7 consistent access to the capital markets. Didn't 8 credit analysts actually comment on the fact that 9 the company had drawn down 2 billion dollars in 10 credit? 11 A. I think that there were concerns earlier than 12 that time period specifically when S&P downgraded 13 the bonds to junk, there were concerns in the 14 market that it would, could potentially be an 15 impediment to raising capital. 16 Q. You did not document in your report anywhere your 17 analysis behind your decision to not include 18 November 24th, 2020 in your event study; is that 19 correct? 20 A. Yes, not specifically. 21 Q. Let's turn to Exhibit 13 of your report which is 22 Page 100 of 108. This is the summary of the 23 event study result. 24 If we look at the first note listed on this 25 page, note AK3, it did not have a statistically</p>

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<p style="text-align: right;">Page 182</p> <p>1 significant price change on July 21st, 2020; is</p> <p>2 that correct?</p> <p>3 A. Correct.</p> <p>4 Q. Or on July 22nd, 2020, correct?</p> <p>5 A. Correct.</p> <p>6 Q. Or on October 30th, 2020, correct?</p> <p>7 A. Correct.</p> <p>8 Q. Its only statistically significant change on the</p> <p>9 four event days was on July 23rd, 2020, right?</p> <p>10 A. Yes, at the 5 percent level.</p> <p>11 Q. FirstEnergy had a credit, had its credit</p> <p>12 downgraded on October 30th, 2020, correct?</p> <p>13 A. Yes.</p> <p>14 Q. Wouldn't the fact that note AK3 did not have an</p> <p>15 abnormal pricing decrease on that day indicate</p> <p>16 that it did not trade in an efficient market?</p> <p>17 A. I don't think so. I don't think that you can</p> <p>18 draw that conclusion from a single observation in</p> <p>19 an event study.</p> <p>20 Q. Okay. Well, wouldn't the fact that this note</p> <p>21 showed statistically significant residual change</p> <p>22 on just one of the four event days you studied</p> <p>23 tend to suggest that it did not trade in an</p> <p>24 efficient market?</p> <p>25 A. On two of the event dates, July 21st and October</p>	<p style="text-align: right;">Page 184</p> <p>1 A. In isolation if you were just looking at the</p> <p>2 event study analysis, I would agree with you but</p> <p>3 overall we've looked at a number of different</p> <p>4 criteria and data and I think that needs to be</p> <p>5 taken into account when you're assessing the</p> <p>6 market for this particular security.</p> <p>7 Q. There isn't any basis in the scholarly literature</p> <p>8 that would allow you to say that a statistically</p> <p>9 significant residual return on just one of the</p> <p>10 four event dates studied supports market</p> <p>11 efficiency, correct?</p> <p>12 MR. GRONBORG: Object to form.</p> <p>13 A. I don't believe there's any scholarly literature</p> <p>14 on single company event studies, so you wouldn't</p> <p>15 find --</p> <p>16 Q. The next --</p> <p>17 A. You wouldn't find a rejection or an acceptance of</p> <p>18 something like that. I think you just wouldn't</p> <p>19 find it.</p> <p>20 Q. Let's look at the next note now which is AN7.</p> <p>21 That note had statistically significant abnormal</p> <p>22 returns on two of the four event dates. July</p> <p>23 23rd and October 30th, correct?</p> <p>24 A. Yes.</p> <p>25 Q. It did not have statistically significant</p>
<p style="text-align: right;">Page 183</p> <p>1 30th, it exhibited a price change. It just</p> <p>2 didn't meet the level of statistical significance</p> <p>3 that I set as the threshold in this test so it's</p> <p>4 not as if there was no reaction but I would agree</p> <p>5 that I would have expected that there would have</p> <p>6 been a statistically significant decrease in the</p> <p>7 price following the downgrade on October 30th.</p> <p>8 Q. And the fact that there was a statistically</p> <p>9 significant change for this note on only one of</p> <p>10 the four event dates you studied would tend to</p> <p>11 indicate that this note did not trade in an</p> <p>12 efficient market; isn't that right?</p> <p>13 MR. GRONBORG: Object to form.</p> <p>14 A. I'm not using the results of the event study</p> <p>15 alone to indicate whether there was evidence that</p> <p>16 these notes traded in an efficient market but I</p> <p>17 would agree with you that the analysis for note 1</p> <p>18 results in one of the four event days</p> <p>19 demonstrating significant price movement on the</p> <p>20 event days of interest.</p> <p>21 Q. So you're weighing different factors in the</p> <p>22 balance here and for note AK3 the results of the</p> <p>23 event study would tend to weigh against market</p> <p>24 efficiency, wouldn't they?</p> <p>25 MR. GRONBORG: Object to form.</p>	<p style="text-align: right;">Page 185</p> <p>1 residual returns on July 21st or July 22nd,</p> <p>2 right?</p> <p>3 A. That's correct. Although July 22nd it had</p> <p>4 certainly meaningful price movement but it didn't</p> <p>5 rise to the level of the 5 percent.</p> <p>6 Q. Why is two out of four days in your event study</p> <p>7 showing statistically significant returns? Does</p> <p>8 that indicate market efficiency or does that tend</p> <p>9 to weigh against market efficiency when you</p> <p>10 balance all the factors?</p> <p>11 MR. GRONBORG: Object to form.</p> <p>12 A. So again I'm not using this study alone to</p> <p>13 demonstrate market efficiency. The study is</p> <p>14 designed to show price responsiveness and in the</p> <p>15 case of note 2, two out of the four events</p> <p>16 demonstrated price responsiveness and two did not</p> <p>17 and I would say that weighs neither for nor</p> <p>18 against a finding of price responsiveness to new</p> <p>19 credit-relevant information.</p> <p>20 Q. Would you say the same thing about notes 5, 6 and</p> <p>21 8 which also exhibited statistically significant</p> <p>22 returns on just two of the four event dates?</p> <p>23 A. Not necessarily because remember I'm looking</p> <p>24 here, I look at October 30th as sort of the most</p> <p>25 significant event and we've got statistically</p>

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<p style="text-align: right;">Page 186</p> <p>1 significant price movement for seven out of the</p> <p>2 eight notes at a very high level of statistical</p> <p>3 significance so again I think you've got to look</p> <p>4 sort of more objectively at what the test was</p> <p>5 designed to do. You have to look at the events</p> <p>6 of interest and this is one analysis that is</p> <p>7 being considered in the opinion as to whether the</p> <p>8 market for these securities was efficient.</p> <p>9 Q. Did you perform any event studies for any</p> <p>10 FirstEnergy bonds for any dates other than the</p> <p>11 four dates in Exhibit 13?</p> <p>12 A. No.</p> <p>13 Q. You never did anything to see what happened to</p> <p>14 the prices of any FirstEnergy bonds on any days</p> <p>15 other than the four days in Exhibit 13; is that</p> <p>16 right?</p> <p>17 A. That's correct.</p> <p>18 Q. Let's look at appendix 1 of your report that</p> <p>19 begins on Page 102 of 108. Appendix 1 describes</p> <p>20 your data cleaning methodology for the TRACE</p> <p>21 data.</p> <p>22 What computer program did you use to clean</p> <p>23 the data? Was it Excel?</p> <p>24 A. It was.</p> <p>25 Q. When cleaning data and removing duplicates, how</p>	<p style="text-align: right;">Page 188</p> <p>1 wouldn't consistently be the buy side or the sell</p> <p>2 side.</p> <p>3 Q. I see.</p> <p>4 How did you account for instances where more</p> <p>5 than two trades had the same trade date, quantity</p> <p>6 and price as well as reporting in contra IDs?</p> <p>7 A. There weren't any like that.</p> <p>8 Q. You say on --</p> <p>9 A. And let me just correct that.</p> <p>10 There weren't any examples of when the ID</p> <p>11 that I created was the same for trades that</p> <p>12 didn't have the same reporting contra/contra</p> <p>13 reporting, if that makes sense.</p> <p>14 Q. Appendix 1 says that you used the execution date</p> <p>15 to identify duplicate trades. Is that what you</p> <p>16 did?</p> <p>17 A. Yes.</p> <p>18 Q. That's the date on which the trade was actually</p> <p>19 executed, right?</p> <p>20 A. Right. That would be the trade date.</p> <p>21 Q. Your backup materials indicate that you used the</p> <p>22 reported date and the reported time for the price</p> <p>23 and volume data that you used in your analysis;</p> <p>24 is that correct?</p> <p>25 A. It may be one in the same.</p>
<p style="text-align: right;">Page 187</p> <p>1 did you decide whether to eliminate the reported</p> <p>2 buy side or the sell side of a duplicate</p> <p>3 transaction?</p> <p>4 A. I'm just trying to recall and I know I gave the</p> <p>5 instructions on doing this.</p> <p>6 So first of all it really wouldn't make a</p> <p>7 difference because they were duplicative, but</p> <p>8 what I did was I assigned a transaction ID to</p> <p>9 every trade. This was a way of, and the</p> <p>10 transaction ID was a function of the trade date,</p> <p>11 the price and the volume so there were trades</p> <p>12 that would have essentially the same transaction</p> <p>13 ID and I looked to see whether the reporting side</p> <p>14 broker and the contra side broker were the same</p> <p>15 but inverted for the second duplicate trade so</p> <p>16 that both sides of the trade reported the trade</p> <p>17 and I eliminated the second trade.</p> <p>18 Does that make sense?</p> <p>19 Q. Yeah. You say you eliminated the second trade.</p> <p>20 Was that the buy side or the sell side of the</p> <p>21 trade?</p> <p>22 A. It was probably the -- it was not regularly the</p> <p>23 buy side or the sell side because these were</p> <p>24 sorted, these were sorted by the ID that I</p> <p>25 created to identify duplicate trades so it</p>	<p style="text-align: right;">Page 189</p> <p>1 Q. Do you know whether reported date and time is the</p> <p>2 same as the execution date and time?</p> <p>3 A. I would have to look but I'm confident in the</p> <p>4 date selection because the only other date that</p> <p>5 is listed in the FINRA data are the settlement</p> <p>6 dates which are not relevant for the analysis.</p> <p>7 Q. Is there a reason why you used the execution date</p> <p>8 and time for the cleaning but the reported date</p> <p>9 and time for your event study analysis?</p> <p>10 A. No.</p> <p>11 Q. On Page 102 in Paragraph 1 there you mention that</p> <p>12 the files contain, quote, "the MPID for the</p> <p>13 reporting broker/dealer and the contra-side</p> <p>14 broker/dealer."</p> <p>15 It also says that you were provided with a</p> <p>16 file showing trade data fields and definitions.</p> <p>17 Is that file in your report at Pages 104 to</p> <p>18 108?</p> <p>19 A. Yes.</p> <p>20 So I was provided with an Excel file and this</p> <p>21 is the printout, if you will, of the Excel file.</p> <p>22 Q. If we look at appendix 1, Paragraph 3,</p> <p>23 Subparagraph D you mention reporting MPID and</p> <p>24 contra MPID, correct?</p> <p>25 A. Yes.</p>

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<p style="text-align: right;">Page 190</p> <p>1 Q. If we turn to Page 104 of your exhibit, the trade 2 data fields and definitions, contra MPID is not a 3 listed data field, is it? 4 A. Contra-side MPID is a listed data field. 5 Q. Is that what you were referring to in 3d when you 6 refer to contra MPID? 7 A. Yes. 8 Q. Okay. And reporting MPID is not listed in the 9 table that begins on Page 104 either. What were 10 you referring to in 3d when you referred to 11 reporting MPID? 12 A. The re- -- so it says: "Report Side MPID. The 13 field displays the MPID of the firm that reported 14 the trade." 15 Q. I'm going to direct your attention to a new 16 exhibit. It's going to be marked for 17 identification purposes as FE 4. If you'll 18 refresh your Exhibit Share folder you should see 19 it momentarily. 20 - - - - 21 (Thereupon, Exhibit FE 4, Jones AK3 22 spreadsheet, was marked for purposes of 23 identification.) 24 - - - - 25 Q. Do you have it?</p>	<p style="text-align: right;">Page 192</p> <p>1 you created as described in appendix 1? 2 A. It may be but I don't see any formula but it 3 looks like that's what it might be, yes. 4 Q. Column Z -- 5 A. So this was in fact a process of, in the process 6 of cleansing the data. 7 Q. Column Z doesn't have a title. Do you know what 8 column Z is? 9 A. I don't. 10 Q. I'm going to ask my colleague to share his screen 11 again so that we can see the formulas behind some 12 of these cells. 13 So my colleague is now sharing the native 14 version of Exhibit FE 4 and we're looking at 15 column, I want to direct your attention to column 16 Z on sheet 1 here. You'll see that it's 17 highlighted right now. 18 What is column Z comparing? I see a formula 19 in the box at the top of the spreadsheet. What 20 does that relate to? 21 A. I can't see column R. It's referring to column 22 R. 23 So this would have been a worksheet that 24 Joshua Shapiro from my firm created to enable the 25 data to be cleansed from FINRA to remove</p>
<p style="text-align: right;">Page 191</p> <p>1 A. I do. 2 Q. Okay. This is one of the backup files you 3 produced. 4 At the top left you see that it says: "AK 5 Clean - Volume & Price Summary." 6 Is it correct that this relates to bond AK3? 7 A. Yes. 8 Q. What is the purpose of the tab in this exhibit 9 that is titled sheet 1? 10 A. It looks to me to be all of the data in some 11 format of cleansing and then there's a clean tab 12 and a volume and price tab so the -- 13 Q. What -- go ahead. I didn't mean to cut you off. 14 A. That's okay. The clean tab would be after 15 looking at all the transactions, performing this 16 cleansing process, and then the volume and price 17 tab is essentially a lookup if you will that sums 18 all of the transactions by trade date, it sums 19 the total volume and the last price. 20 Q. What is the purpose of the tab titled "Bond 21 Trading Dates"? 22 A. That would be the dates upon which the bond 23 market essentially is open. 24 Q. Would you go to sheet 1, please, and look at 25 column X. Is column X the transaction ID that</p>	<p style="text-align: right;">Page 193</p> <p>1 duplicates, et cetera. 2 Q. Okay. And does the formula here mean that a cell 3 R-4 equals cell S-5, then the cell will show the 4 number 1 and if not it shows a zero? 5 A. That's what it shows but I don't know the thought 6 process there behind that. 7 Q. So what it means is that cell R-4 equals cell S-5 8 here? 9 A. Yes. 10 Q. What does column R show? 11 A. The MPID of the broker that reported the trade. 12 Q. And column S? 13 A. The contra side or the other side of the trade, 14 the MPID for the other side of the trade. 15 Q. Okay. So column Z is comparing whether the 16 report side report MPID is equal to the contra 17 side report MPID? 18 A. With a difference of one row. 19 Q. If we look at column A, it's headed "Report Side 20 MPID" and if we look at column H it's headed 21 "Contra Side MPID." 22 Why didn't you use these two columns to 23 compare rather than columns R and S? 24 A. The data that you are looking at in sheet 1 are 25 not necessarily the data as we received it from</p>

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<p style="text-align: right;">Page 194</p> <p>1 FINRA so I think that I was trying to explain</p> <p>2 that this is an interim step where these data</p> <p>3 were cleansed and I don't know for certain</p> <p>4 whether this particular sheet had been worked on</p> <p>5 in establishing the different steps to result in</p> <p>6 the clean set of data; so I can't tell you</p> <p>7 whether this is one of Josh's interim worksheets</p> <p>8 or not.</p> <p>9 Q. Do columns A and H refer to something different</p> <p>10 than columns R and S?</p> <p>11 A. Again I don't know whether these are the original</p> <p>12 data as we received them from FINRA or an interim</p> <p>13 step so I can't tell you more precisely than that</p> <p>14 what they're, what they represent.</p> <p>15 Q. We're going to mark another exhibit now, as</p> <p>16 Exhibit FE 5, and if you refresh your exhibit</p> <p>17 folder you should be able to see that</p> <p>18 momentarily.</p> <p>19 - - - -</p> <p>20 (Thereupon, Exhibit FE 5, Jones AL1</p> <p>21 spreadsheet, was marked for purposes of</p> <p>22 identification.)</p> <p>23 - - - -</p> <p>24 Q. You should have that now.</p> <p>25 MR. RITTS: Ryan, we're going to</p>	<p style="text-align: right;">Page 196</p> <p>1 AL1 file here.</p> <p>2 Can you explain why there aren't</p> <p>3 corresponding tabs in the note AL1 file?</p> <p>4 A. I think we produced these to show the results of</p> <p>5 the cleansing process which is the volume and</p> <p>6 price summary which appears in both files and it</p> <p>7 looks like the AK file had some additional data</p> <p>8 maybe from an earlier procedure of cleansing the</p> <p>9 data but I can't tell you for certain, as I</p> <p>10 directed this to be done but these are not my</p> <p>11 spreadsheets per se.</p> <p>12 Q. Okay. Do you know why the note AK3 file had two</p> <p>13 extra tabs that don't appear in the backup for</p> <p>14 any of the other bonds?</p> <p>15 A. No.</p> <p>16 Q. Staying here with the note AL1 file, looking at</p> <p>17 the "Volume & Price" tab, this is the price</p> <p>18 series that you used to calculate the returns for</p> <p>19 the event study; is that right?</p> <p>20 A. Yes.</p> <p>21 Q. Can you explain how you generated each column in</p> <p>22 this tab?</p> <p>23 A. The volume would have been the total transaction</p> <p>24 volume for the day, the day beginning at 5:16</p> <p>25 p m. the prior day and going through 5:15 p m. of</p>
<p style="text-align: right;">Page 195</p> <p>1 have to mark that Exhibit FE 5 later.</p> <p>2 MR. HARMANIS: Okay.</p> <p>3 A. There we go.</p> <p>4 Q. If you open up Exhibit 5, this is another backup</p> <p>5 file that you produced. Up at the top left it</p> <p>6 the says: "AL Clean - Volume & Price Summary."</p> <p>7 This data relates to bond AL1; is that</p> <p>8 correct?</p> <p>9 A. Yes.</p> <p>10 Q. Let's look at sheet 1 on this, please. So if we</p> <p>11 compare sheet 1 in this spreadsheet for note AL1</p> <p>12 it has the same format and purpose as the tab</p> <p>13 titled "Clean" for the note AK3 file; is that</p> <p>14 right?</p> <p>15 MR. GRONBORG: Object to form.</p> <p>16 A. It would appear so.</p> <p>17 Q. Staying with the, with Exhibit 5, the AL1</p> <p>18 spreadsheet here, if we look at the volume and</p> <p>19 price tab, is it has the same format and purpose</p> <p>20 as the volume and price tab for the note AK3</p> <p>21 file; is that right?</p> <p>22 A. Yes.</p> <p>23 Q. The AK3 file also had tabs titled "Sheet 1" and</p> <p>24 "Bond Trading Date" so there were four tabs on</p> <p>25 the note AK3 file but there are only two on the</p>	<p style="text-align: right;">Page 197</p> <p>1 the current day, and the last price should be the</p> <p>2 price closest to 5:15 p m. on that day.</p> <p>3 Q. Okay. And the last price is pulled from sheet 1</p> <p>4 column AB; is that correct?</p> <p>5 A. I can't tell you for certain that that's correct.</p> <p>6 Q. Okay. Well, if you want to toggle back and forth</p> <p>7 to sheet 1 on Exhibit 5, you may.</p> <p>8 A. I'm not seeing the, I'm not seeing the timestamps</p> <p>9 that correspond with columns Y, Z, AA, AB and AC</p> <p>10 in sheet 1.</p> <p>11 Q. Yeah. Can you see column C?</p> <p>12 A. Yes.</p> <p>13 Q. Look at column C, okay.</p> <p>14 A. I see column C. I'm just concerned that there is</p> <p>15 some interim step that I'm unaware of for the</p> <p>16 pulling of the last price as of a certain time.</p> <p>17 Q. Okay. That's fair. I'm just trying to</p> <p>18 understand --</p> <p>19 A. Yeah, I --</p> <p>20 Q. -- how these two things work together in this.</p> <p>21 A. I think you are, I think you have the volume and</p> <p>22 price for sure that was used for the event study</p> <p>23 analysis but I think you have interim steps in</p> <p>24 terms of other worksheets that it may be pulling</p> <p>25 from and I don't know why some earlier work was</p>

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<p style="text-align: right;">Page 198</p> <p>1 produced and the end result is the clean volume 2 and price summary. 3 Q. So looking at the volume and price page, the 4 prices that appear in column D under "Last 5 Price," you don't know whether those come from 6 column AD on sheet 1 or from somewhere else? 7 A. I don't. 8 Q. On the volume and price tab would you go down to 9 row 161 please. That date is October 28, 2020. 10 Actually look on sheet 1 at row 161, please -- or 11 no, I take that back. Go back to the volume and 12 price one. My mistake. I'm looking at row 161 13 on the volume and price tab. 14 A. Okay. 15 Q. October 28th it reflects the last price for this, 16 for bond AL1 as being \$101.72-and-a-half cents; 17 is that right? 18 A. Yes. That's what it shows here. 19 Q. The next row is 162, the date there is October 20 30th, 2020 and the last price you had for bond 21 AL1 on October 30th is \$97.79.1 cents; is that 22 right? 23 A. Yes. 24 Q. These are the prices that you used to calculate 25 the return for October 30th, 2020 in your event</p>	<p style="text-align: right;">Page 200</p> <p>1 is that correct? 2 A. Yes. 3 Q. And you don't know whether that last price in 4 column AD is what was used to calculate returns 5 for the event study; is that right? 6 A. In AD? 7 Q. Yes. 8 A. Or in AB? 9 Q. AD. Is the last of the -- 10 A. I do not know whether that was used -- yes. I do 11 not know whether that was used. It looks to me 12 like those trades are out of sequence and 13 potentially erroneous trades. There is a large 14 discrepancy between the price on the 28th, the 15 prices for trades on the 28th and the prices for 16 trades on the 29th and the prices for trades on 17 the 30th so I would have to go back, look at the 18 original data to see whether those were erroneous 19 trades. 20 Q. Okay, you're looking at rows 911 to, to what, 21 9 -- 22 A. I am looking at rows 906 to 928. 23 Q. All right. And you don't know whether that 24 reflects, whether that reflects accurate data or 25 not? Is that what you're saying?</p>
<p style="text-align: right;">Page 199</p> <p>1 study? 2 A. I believe so. 3 Q. And to confirm, if there is no trading for a note 4 on a particular trading day, do you calculate or 5 did you calculate the return using the price for 6 the most recent day for which there were trades 7 for that note? 8 A. I would, yes, I would. 9 Q. Do you know whether October 29th, 2020 was a 10 normal trading day? 11 A. I believe it was. 12 Q. Would you go down to row 920? 13 A. Okay. 14 Q. Look at sheet 1, I'm sorry. Go to row 920 on 15 sheet 1. Okay. Sheet 1. I'm sorry. Go to 912 16 on sheet 1, please. 17 A. Yes. 18 Q. There's -- 912, 913 and 914 all show trades on 19 October 29th, 2020; is that correct? 20 A. Yes. 21 Q. Okay. Looking still at sheet 1 for the note AL1 22 file, I want to focus on column Z through AD. 23 Column Z shows the date; is that correct? 24 A. Yes. 25 Q. Column AD is where the last price is identified;</p>	<p style="text-align: right;">Page 201</p> <p>1 A. What I'm saying is those trades may have been 2 reported out of sequence and therefore removed 3 from the, or cancelled trades and removed from 4 the final volume and price because the last price 5 shown here for 10/28 is 101.73 which is where 6 this note has traded almost as far back as I look 7 through these data, and on the 30th it only 8 declines to the first trade on the 30th, 98.20 so 9 to have three trades at 85 or below on the 29th 10 indicates to me that those are likely either 11 reported out of sequence or were cancelled trades 12 and should not have been part of and were not 13 part of the last price in the volume and price 14 shown on the other tab. 15 Q. If we look at tab or column AD row 914 "Last 16 Price" for October 29th, 2020 you see it shows 17 \$82.90 there? 18 A. Yes. 19 Q. If we switch over to the volume and price tab, 20 there is no, if you look at rows 161 and 162 -- 21 A. Right. 22 Q. -- there is no entry for October 29th, correct? 23 A. That's correct. 24 Q. Did you make a decision to leave out the October 25 29th last price from your analysis?</p>

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<p style="text-align: right;">Page 202</p> <p>1 MR. GRONBORG: Object to form.</p> <p>2 A. I would, I would not have made such a decision to</p> <p>3 ad hoc leave out a price or volume for any date</p> <p>4 during my analysis.</p> <p>5 What I'm saying is: The data in sheet 1 may</p> <p>6 have been through some stage of the cleansing</p> <p>7 process. It seems to me very strange that there,</p> <p>8 that the price would decline from over, well over</p> <p>9 par value to 82 in a day when there's seemingly</p> <p>10 no information and for no reason. It looks like</p> <p>11 it's an erroneous trade to me and I can go back</p> <p>12 and look at the original data.</p> <p>13 Q. But as you sit here right now, you don't know why</p> <p>14 there isn't any volume or price data on the</p> <p>15 volume and price spreadsheet for October 29th,</p> <p>16 2020?</p> <p>17 MR. GRONBORG: Object to form.</p> <p>18 A. The inference that I'm making, given the unusual</p> <p>19 prices on the 29th, is that those were erroneous</p> <p>20 trades or reported out of sequence and therefore</p> <p>21 should not have been reported for October 29th.</p> <p>22 Q. But you don't as you sit here today know whether</p> <p>23 either of those is actually the case?</p> <p>24 A. I don't but looking at the data I can tell you</p> <p>25 that that, those data look to be highly suspect</p>	<p style="text-align: right;">Page 204</p> <p>1 be at 11:30 a.m. It could be at 1:30 a.m. It</p> <p>2 depends on when the last trade occurred that was</p> <p>3 closest to 5:15 so that is one of the issues, the</p> <p>4 asynchronous pricing problem with corporate notes</p> <p>5 and one of the reasons why autocorrelation is not</p> <p>6 a meaningful indicator of inefficiencies in the</p> <p>7 market because there's no official last price</p> <p>8 where it's, you know, each of the notes, all of</p> <p>9 the corporate bonds that are issued and</p> <p>10 outstanding and trading end the day at a certain</p> <p>11 time. It could be some earlier point in time.</p> <p>12 It's another reason why we have some possible</p> <p>13 less price sensitivity when you're doing an event</p> <p>14 study analysis because the, you know, bond 1 may</p> <p>15 have stopped trading or may have a last trade at</p> <p>16 3:00 and bond 8 might have a last trade at 4:00</p> <p>17 so we are, you know, comparing different end</p> <p>18 periods or end times when we're looking at</p> <p>19 day-to-day price returns so it doesn't cause me</p> <p>20 any concern if the Bloomberg U.S. Corporate Bond</p> <p>21 Index is computed at 3:00 and the Senior Notes</p> <p>22 cutoff last trade closest to 5:15 is what we used</p> <p>23 to calculate returns. There was a meaningful</p> <p>24 correlation between each of the Senior Notes'</p> <p>25 daily price returns and the price returns to the</p>
<p style="text-align: right;">Page 203</p> <p>1 to me on the 29th.</p> <p>2 Q. Your report says that you used a 5:15 p.m.</p> <p>3 Eastern Time cutoff for bond prices for any given</p> <p>4 day because that is the end of the trading day</p> <p>5 for corporate bonds; is that correct?</p> <p>6 A. That's correct.</p> <p>7 Q. What was your basis for concluding that the end</p> <p>8 of the corporate bond trading day is 5:15?</p> <p>9 A. The FINRA TRACE Fact Book.</p> <p>10 Q. Elsewhere you used, you refer to the corporate,</p> <p>11 the Bloomberg Corporate Bond Index. Do you know</p> <p>12 when that is computed every day?</p> <p>13 A. I don't.</p> <p>14 Q. You're not aware that it's computed at 3:00 every</p> <p>15 day?</p> <p>16 A. I'm not.</p> <p>17 Q. That index is the single factor in your</p> <p>18 regression for the event study, correct?</p> <p>19 A. Correct.</p> <p>20 Q. Do you have any concerns about computing index</p> <p>21 returns over a different time period from the</p> <p>22 time period that you used for pricing the</p> <p>23 FirstEnergy notes that you analyzed?</p> <p>24 A. I don't, only because the last price is not</p> <p>25 necessarily at 5:15 p.m. for the notes. It could</p>	<p style="text-align: right;">Page 205</p> <p>1 index.</p> <p>2 Q. Would it have been a more precise comparison to</p> <p>3 use a cutoff time of 3:00 for the FirstEnergy</p> <p>4 notes, though, to --</p> <p>5 A. I don't think so.</p> <p>6 MR. GRONBORG: Object to form.</p> <p>7 A. I don't think so.</p> <p>8 Q. You don't --</p> <p>9 A. You could potentially have the same issue so</p> <p>10 there may not have been a last trade close to</p> <p>11 3:00.</p> <p>12 Q. In your analysis, you used the last available</p> <p>13 price for a bond to compute returns; is that</p> <p>14 right?</p> <p>15 A. Yes.</p> <p>16 Q. You didn't require that the returns be computed</p> <p>17 based on prices from consecutive trading days,</p> <p>18 correct?</p> <p>19 A. I don't know what that means.</p> <p>20 Q. Well, if there was a day where there wasn't any</p> <p>21 trading, you would calculate returns for the next</p> <p>22 day on which there was trading by looking back to</p> <p>23 two days before if that was when the last trade</p> <p>24 occurred; is that right?</p> <p>25 A. That's right.</p>

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<p style="text-align: right;">Page 206</p> <p>1 Q. You didn't use a volume weighted average price?</p> <p>2 A. I did not.</p> <p>3 Q. Is there any reason why you used last price and</p> <p>4 not a volume weighted average price?</p> <p>5 A. Typically what is done is close-to-close or</p> <p>6 last-to-last so if it was a, you know, we</p> <p>7 wouldn't look at intraday trading for a common</p> <p>8 stock and take a volume weighted average price.</p> <p>9 Q. What date and time variables did you use to</p> <p>10 identify the date and time for a given</p> <p>11 transaction when you identified the last price?</p> <p>12 A. What date and time? I think I just explained,</p> <p>13 right? So the volume would, the volume for day 1</p> <p>14 would -- the volume for day 2 would be, would</p> <p>15 include volume from 5:16 p.m. the prior day up</p> <p>16 until 5:15 p.m. that day.</p> <p>17 Q. Okay. But the specific field you used was trade</p> <p>18 report date and trade report time?</p> <p>19 A. For?</p> <p>20 Q. To determine the last, the date and time of the,</p> <p>21 for a given transaction?</p> <p>22 A. I thought I said earlier I thought I used the</p> <p>23 execution, the execution date and time.</p> <p>24 Q. To measure damages in a case like this, you look</p> <p>25 at artificial inflation; is that correct?</p>	<p style="text-align: right;">Page 208</p> <p>1 over time?</p> <p>2 A. I do.</p> <p>3 Q. It depends on what false or misleading statements</p> <p>4 have been made and when?</p> <p>5 MR. GRONBORG: Object to form.</p> <p>6 A. Not necessarily on what false statements have</p> <p>7 been made and when but what is the economic</p> <p>8 significance of the false or misleading</p> <p>9 information that may have entered the market at</p> <p>10 different points in time during the class period.</p> <p>11 Q. And the economic significance of the false or</p> <p>12 misleading information can vary at different</p> <p>13 points in time; is that right?</p> <p>14 MR. GRONBORG: Object to form.</p> <p>15 A. Yes.</p> <p>16 Q. How do you measure the change in inflation over</p> <p>17 time?</p> <p>18 MR. GRONBORG: Object to form.</p> <p>19 A. It depends.</p> <p>20 Q. Have you ever dealt with determining variations</p> <p>21 in inflation over time in another case?</p> <p>22 A. I have.</p> <p>23 Q. How did you deal with it there?</p> <p>24 A. In one particular case that I worked that I was</p> <p>25 the expert for, the subject of the complaint was</p>
<p style="text-align: right;">Page 207</p> <p>1 MR. GRONBORG: Object to form.</p> <p>2 A. To measure Exchange Act damages?</p> <p>3 Q. Yes.</p> <p>4 A. Yes.</p> <p>5 MR. GRONBORG: Objection.</p> <p>6 Q. That and the inflation of the price of a security</p> <p>7 at a given point in time that's attributable to</p> <p>8 false or misleading statements or omissions?</p> <p>9 A. Yes.</p> <p>10 Q. You agree that the price that a security drops at</p> <p>11 the end of the class period is not the same thing</p> <p>12 as the damages that Exchange Act plaintiffs can</p> <p>13 claim, correct?</p> <p>14 MR. GRONBORG: Object to form.</p> <p>15 A. Correct.</p> <p>16 Q. You can't just say that the drop at the end of</p> <p>17 the class period is the amount of artificial</p> <p>18 inflation. It's more complicated than that,</p> <p>19 right?</p> <p>20 MR. GRONBORG: Object to form.</p> <p>21 A. So I like to think of the price impact as being</p> <p>22 sort of the starting point that you would look at</p> <p>23 but that is not the same thing as the damage per</p> <p>24 share or the inflation per share.</p> <p>25 Q. Do you agree that inflation, if any, can vary</p>	<p style="text-align: right;">Page 209</p> <p>1 the implementation of a streamlining process if</p> <p>2 you will or an integration process and the</p> <p>3 integration process ultimately failed and there</p> <p>4 was knowledge of the problems with the</p> <p>5 implementation process early in the class period</p> <p>6 but not to the extent of the knowledge that</p> <p>7 defendants had about the failures later in the</p> <p>8 class period so there was -- for lack of a better</p> <p>9 term, there was creeping inflation during the</p> <p>10 class period until a point in time when it was</p> <p>11 apparent that there was full knowledge that the</p> <p>12 integration had failed and would impact the</p> <p>13 company's financial condition and for the earlier</p> <p>14 points in time, there were internal records</p> <p>15 regarding how much of the implementation had been</p> <p>16 completed and percentage of the implementation</p> <p>17 program had been completed and the percentage</p> <p>18 that was failing so there was a quantitative</p> <p>19 track record, if you will, of how to parse the</p> <p>20 inflation or the damages.</p> <p>21 Q. And you used that to measure the amount of</p> <p>22 inflation at different points in the class</p> <p>23 period?</p> <p>24 A. That was one of the things that certainly that I</p> <p>25 relied on to mirror, if you will, this creeping</p>

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<p style="text-align: right;">Page 210</p> <p>1 inflation.</p> <p>2 Q. Do you agree that you would need to analyze</p> <p>3 artificial inflation here on a bond-by-bond</p> <p>4 basis?</p> <p>5 MR. GRONBORG: Object to form.</p> <p>6 A. Yes.</p> <p>7 Q. In this case, when did the alleged misstatements</p> <p>8 and omissions become severe enough that they</p> <p>9 affected FirstEnergy's probability of default?</p> <p>10 MR. GRONBORG: Object to form.</p> <p>11 A. I haven't analyzed that. So at this stage of the</p> <p>12 litigation I've reviewed the complaint and I'm</p> <p>13 aware that plaintiffs allege that there was false</p> <p>14 and misleading information or omitted information</p> <p>15 as early as the beginning of the class period.</p> <p>16 I have not been asked to do any analysis of</p> <p>17 when inflation or when the misinformation rose to</p> <p>18 a level where it would possibly impact the credit</p> <p>19 profile of FirstEnergy.</p> <p>20 Q. You mentioned the term "confounding information"</p> <p>21 earlier in your testimony today.</p> <p>22 Have you considered how you could go about</p> <p>23 removing the effect of confounding information on</p> <p>24 the prices of the notes that you analyzed here?</p> <p>25 A. Well, I haven't considered whether there was</p>	<p style="text-align: right;">Page 212</p> <p>1 how to determine those damages?</p> <p>2 A. At this point I'm not prepared as I have seen</p> <p>3 no -- I haven't seen any discovery or had a</p> <p>4 lengthy discussion with plaintiffs counsel about</p> <p>5 the damages and the liability and evidence, et</p> <p>6 cetera.</p> <p>7 Q. Have you attempted to determine the amount of</p> <p>8 inflation for any of these eight FirstEnergy</p> <p>9 notes on any date?</p> <p>10 A. No.</p> <p>11 Q. Or any other FirstEnergy security?</p> <p>12 A. No.</p> <p>13 Q. Have you been retained to offer any opinions on</p> <p>14 loss causation in this case?</p> <p>15 A. I have not.</p> <p>16 Q. Are you offering any opinion as to whether the</p> <p>17 defendants actually made any false statements</p> <p>18 here?</p> <p>19 A. No.</p> <p>20 Q. Have you ever been a party to a lawsuit before?</p> <p>21 A. I was a witness in a car accident but other than</p> <p>22 that, no.</p> <p>23 Q. Have you ever been convicted of a criminal</p> <p>24 offense?</p> <p>25 A. No.</p>
<p style="text-align: right;">Page 211</p> <p>1 confounding information so I also have not</p> <p>2 considered how I would remove the impact of</p> <p>3 potentially confounding information.</p> <p>4 Q. Okay. You don't have a view one way or the other</p> <p>5 as to whether or how it could be done?</p> <p>6 A. I don't. I don't. I have not looked at that at</p> <p>7 this point.</p> <p>8 Q. Have you been retained to calculate any damages</p> <p>9 in this case?</p> <p>10 A. Not that I was asked to express an opinion on.</p> <p>11 There were some calculations --</p> <p>12 MR. GRONBORG: That's it. Stop.</p> <p>13 Stop there. His question is limited to</p> <p>14 what you were doing in your role as a</p> <p>15 testifying expert.</p> <p>16 A. No.</p> <p>17 MR. GRONBORG: Is that right,</p> <p>18 Geoff?</p> <p>19 MR. RITTS: Yes.</p> <p>20 BY MR. RITTS:</p> <p>21 Q. Do you know if you will be retained to offer an</p> <p>22 opinion about damages in this case?</p> <p>23 A. I have not been asked to.</p> <p>24 Q. Are you prepared to offer an opinion as to the</p> <p>25 damages suffered by any of the bond purchasers or</p>	<p style="text-align: right;">Page 213</p> <p>1 Q. Has DLA ever been a party to a lawsuit?</p> <p>2 A. I have no idea.</p> <p>3 Q. Not that you've been involved in?</p> <p>4 A. No.</p> <p>5 MR. RITTS: Let's go off the</p> <p>6 record for a few minutes here.</p> <p>7 THE VIDEOGRAPHER: We're off the</p> <p>8 record at 4:28 p.m.</p> <p>9 - - - -</p> <p>10 (Thereupon, a recess was had.)</p> <p>11 - - - -</p> <p>12 THE VIDEOGRAPHER: We are back on</p> <p>13 the record at 4:38 p.m.</p> <p>14 MR. RITTS: I don't have any</p> <p>15 further questions for you, Ms. Jones.</p> <p>16 Thank you for your time today.</p> <p>17 THE WITNESS: Thank you.</p> <p>18 MR. GRONBORG: No questions from</p> <p>19 plaintiffs.</p> <p>20 THE VIDEOGRAPHER: This then</p> <p>21 concludes the deposition of Cynthia Jones</p> <p>22 on July 19th, 2022.</p> <p>23 The time is 4:38 Eastern Daylight</p> <p>24 Time and we are off the record.</p> <p>25 - - - -</p>

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<p style="text-align: right;">Page 214</p> <p>1 (Signature not waived.) 2 (Deposition concluded at 4:38 p.m.) 3 - - - - 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>	<p style="text-align: right;">Page 216</p> <p>1 Veritext Legal Solutions 2 1100 Superior Ave 3 Suite 1820 4 Cleveland, Ohio 44114 5 Phone: 216-523-1313 6 7 July 22, 2022 8 To: TOR GRONBORG 9 10 Case Name: In Re Firstenergy Corp Securities Litigation v 11 Veritext Reference Number: 5297712 12 Witness: Cynthia Jones Deposition Date: 7/19/2022 13 14 Dear Sir/Madam: 15 16 Enclosed please find a deposition transcript Please have the witness 17 review the transcript and note any changes or corrections on the 18 included errata sheet, indicating the page, line number, change, and 19 the reason for the change Have the witness' signature notarized and 20 forward the completed page(s) back to us at the Production address 21 shown 22 above, or email to production-midwest@veritext com 23 24 If the errata is not returned within thirty days of your receipt of 25 this letter, the reading and signing will be deemed waived 26 27 Sincerely, 28 Production Department 29 30 NO NOTARY REQUIRED IN CA</p>
<p style="text-align: right;">Page 215</p> <p>1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25</p>	<p style="text-align: right;">Page 217</p> <p>1 DEPOSITION REVIEW 2 CERTIFICATION OF WITNESS 3 4 ASSIGNMENT REFERENCE NO: 5297712 5 CASE NAME: In Re Firstenergy Corp Securities Litigation v 6 DATE OF DEPOSITION: 7/19/2022 7 WITNESS' NAME: Cynthia Jones 8 In accordance with the Rules of Civil 9 Procedure, I have read the entire transcript of 10 my testimony or it has been read to me 11 I have made no changes to the testimony 12 as transcribed by the court reporter 13 14 Date Cynthia Jones 15 Sworn to and subscribed before me, a 16 Notary Public in and for the State and County, 17 the referenced witness did personally appear 18 and acknowledge that: 19 20 They have read the transcript; 21 They signed the foregoing Sworn 22 Statement; and 23 Their execution of this Statement is of 24 their free act and deed 25 26 I have affixed my name and official seal 27 this ____ day of _____, 20____ 28 29 Notary Public 30 Commission Expiration Date</p>

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<p>1 DEPOSITION REVIEW CERTIFICATION OF WITNESS</p> <p>2</p> <p>3 ASSIGNMENT REFERENCE NO: 5297712 CASE NAME: In Re Firstenergy Corp Securities Litigation v DATE OF DEPOSITION: 7/19/2022 WITNESS' NAME: Cynthia Jones</p> <p>4 In accordance with the Rules of Civil Procedure, I have read the entire transcript of 5 my testimony or it has been read to me 6 I have listed my changes on the attached Errata Sheet, listing page and line numbers as 7 well as the reason(s) for the change(s) 8 I request that these changes be entered 9 as part of the record of my testimony</p> <p>10</p> <p>11 I have executed the Errata Sheet, as well 12 as this Certificate, and request and authorize 13 that both be appended to the transcript of my 14 testimony and be incorporated therein</p> <p>15 _____ Date Cynthia Jones</p> <p>16 Sworn to and subscribed before me, a 17 Notary Public in and for the State and County, the referenced witness did personally appear 18 and acknowledge that: 19 They have read the transcript; They have listed all of their corrections 20 in the appended Errata Sheet; They signed the foregoing Sworn 21 Statement; and Their execution of this Statement is of 22 their free act and deed I have affixed my name and official seal 23 this _____ day of _____, 20____ 24 _____ Notary Public 25 _____ Commission Expiration Date</p>	Page 218
<p>1 ERRATA SHEET VERITEXT LEGAL SOLUTIONS MIDWEST</p> <p>2 ASSIGNMENT NO: 5297712</p> <p>3 PAGE/LINE(S) / CHANGE /REASON</p> <p>4 _____</p> <p>5 _____</p> <p>6 _____</p> <p>7 _____</p> <p>8 _____</p> <p>9 _____</p> <p>10 _____</p> <p>11 _____</p> <p>12 _____</p> <p>13 _____</p> <p>14 _____</p> <p>15 _____</p> <p>16 _____</p> <p>17 _____</p> <p>18 _____</p> <p>19 _____</p> <p>20 _____</p> <p>21 Date Cynthia Jones</p> <p>22 SUBSCRIBED AND SWORN TO BEFORE ME THIS _____</p> <p>23 DAY OF _____, 20____ .</p> <p>24 _____ Notary Public</p> <p>25 _____ Commission Expiration Date</p>	Page 219

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Federal Rules of Civil Procedure

Rule 30

(e) Review By the Witness; Changes.

(1) Review; Statement of Changes. On request by the deponent or a party before the deposition is completed, the deponent must be allowed 30 days after being notified by the officer that the transcript or recording is available in which:

(A) to review the transcript or recording; and

(B) if there are changes in form or substance, to sign a statement listing the changes and the reasons for making them.

(2) Changes Indicated in the Officer's Certificate. The officer must note in the certificate prescribed by Rule 30(f)(1) whether a review was requested and, if so, must attach any changes the deponent makes during the 30-day period.

DISCLAIMER: THE FOREGOING FEDERAL PROCEDURE RULES ARE PROVIDED FOR INFORMATIONAL PURPOSES ONLY.

THE ABOVE RULES ARE CURRENT AS OF APRIL 1, 2019. PLEASE REFER TO THE APPLICABLE FEDERAL RULES OF CIVIL PROCEDURE FOR UP-TO-DATE INFORMATION.

VERITEXT LEGAL SOLUTIONS
COMPANY CERTIFICATE AND DISCLOSURE STATEMENT

Veritext Legal Solutions represents that the foregoing transcript is a true, correct and complete transcript of the colloquies, questions and answers as submitted by the court reporter. Veritext Legal Solutions further represents that the attached exhibits, if any, are true, correct and complete documents as submitted by the court reporter and/or attorneys in relation to this deposition and that the documents were processed in accordance with our litigation support and production standards.

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